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Crustal Dynamics Project  
Data Analysis—1987

*Volume 2—Mobile Site  
VLBI Geodetic Results  
1979-86*

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# CRUSTAL DYNAMICS PROJECT DATA ANALYSIS - 1987

## Volume 2. Mobile Site VLBI Geodetic Results

### I. INTRODUCTION

This report to the Crustal Dynamics Project Data Information System (CDP-DIS) documents the results obtained by the Goddard VLBI Data Analysis Team in analyzing the CDP VLBI observing sessions using mobile VLBI between Oct. 1982 and the end of 1986. Also included are results from the Venus station in the Deep Space Network Goldstone tracking complex (GOLDVENU), from MV-1 at the Vandenberg Air Force Base referred to its ground monument, and from six fixed station baselines used in mobile sessions.

The results presented here are the complete mobile data set for the stated period. Earlier single frequency experiments are considered unusable because of the inability to calibrate the ionosphere. The values presented were estimated by extending the GLB122 solution described in Volume 1 (NASA TM 100682). With the exception of two experiments involving GOLDVENU, the observations and data analysis methods are identical to those for fixed stations. All mobile results are referred to ground monuments using eccentricity data obtained during each observing session. The GLOBL analysis system described in Volume 1 was used.

### II. OBSERVATIONS

Mark III instrumentation described in Volume 1 was used for all observations. In addition to VLBI observations, the vector from a ground geodetic monument to the VLBI reference point of the mobile antenna was recorded for each session by the observers. The method used to measure eccentricities was developed by the National Geodetic Survey. A single geodetic monument is used at each mobile site although the antenna may actually have been placed over different monuments for different site occupations. The eccentricity data are compiled by the National Geodetic Survey for the CDP in a file named ECCDAT and are not contained in this report. An error in the eccentricity of MV-1 at Vandenberg\* discovered in September, 1987 is corrected in this report. Table 1 lists the CDP mobile site names, monument numbers, and approximate locations.

In two sessions, \$84JAN07X and \$84JAN14XP, phase delay data were used to determine the baseline between MOJAVE12 and GOLDVENU. No delay rate data were used. The intrinsic precision of phase delay is considerably better than group delay, but the small size of the phase delay ambiguity limits its geodetic applications to shorter baselines or special schedules.

\* memo, M. Abell (NGS) to distribution, November 4, 1987.

### III. DATA ANALYSIS RESULTS

The purpose of the GLB171 solution was to produce tables of baseline evolution from the complete CDP VLBI data set including both fixed stations and mobile sites in a manner that made no a priori assumptions about tectonic plate motion. The station coordinates were therefore treated as arc parameters, i.e., they were allowed to vary from session to session subject only to the constraint of being estimated with a global set of source coordinate values. The GLB171 solution used 221,775 delays and 221,594 rates to estimate 109 global parameters and 16,862 arc parameters. Included were 556 separate sessions. There were 50,307 data pairs and 97 sessions comprising the mobile data base. Table 2 lists the 101 sessions involving mobile sites and GOLDVENU. No experiment purpose comparable to that indicated in Volume 1 was defined for the mobile sessions listed in Table 2. The overall weighted rms fit of the solution was 75 ps for delay and 64 fs/s for delay rate, and the reduced chi-square was 0.98. The 109 global parameters are the coordinates of the observed extragalactic radio sources except for the right ascension of 3C273B, which was fixed to define the right ascension origin of the celestial frame. The source positions are given in Table 3. With the exception of two sources with known structure (3C84 and 3C279) observed almost entirely only in mobile schedules and three southern sources (1034-293, NRA0530 and 1921-293), the positions are insignificantly different from Volume 1. The arc parameters included the positions of the stations for each session (except for the reference station for that session), the parametrizations for the station clocks and atmospheres and daily offsets in obliquity and longitude.

Tables 4.1 - 4.131 present the baseline lengths and formal errors from the mobile, GOLDVENU, and VNDNBERG observing sessions. The number of observations used and the total number of observations acquired are also listed. Where the number of observations is blank, the observations on the baseline were not correlated and the baseline was inferred from closure of the observing network. The mobile baselines listed in Volume 1 are repeated here for convenience. The baselines from a mobile site or VNDNBERG run from the listed ground monument. The baselines from a fixed station run from the antenna VLBI reference point. For an antenna with intersecting axes, the VLBI reference point is the intersection. For an offset axis antenna, the VLBI reference point is the intersection of the fixed axis with the plane perpendicular to the fixed axis that contains the moving axis. All baseline lengths are chord distances.

Tables 4.1 - 4.131 also show the weighted mean baseline values, the weighted rms scatter about the mean values, and the rate of change of baseline length when a meaningful value can be computed. In general the rate of change is not presented if there are too few observing sessions or if the sessions do not span more than one year. The least-squares mean and rate

estimates are based on the formal standard errors of the individual baseline length values. The listed error for each mean and rate value was computed by scaling the formal error from the least-squares estimate by the reduced chi-square of the fit. The weighted rms fit of the data about the best-fit line is also given where relevant.

Tables 5.1 - 5.92 present the transverse components of the baselines observed during mobile sessions from 1984 - 1986 for baselines less than 1500 km in length. The transverse direction for a given baseline is defined by the cross product of the a priori baseline vector from station 1 to station 2 with the a priori geocentric vector to station 2. The transverse component is the adjustment from the a priori baseline vector in the direction perpendicular to the baseline vector and directed toward the horizon at either site, and is defined such that a clockwise rotation seen from above is positive in sign. Since the transverse component is strongly dependent on the orientation of the terrestrial frame, only the results after the beginning of 1984 are given using a VLBI earth orientation series derived from the CDP and IRIS data given in Volume 1 as a priori values. Weighted mean transverse values and weighted rms scatter about the means are also given as well as rates of change of the transverse and scatter about the best-fit lines where usable.

Tables 6.1 - 6.6 present the length information from baselines between fixed stations which were also used during mobile sessions. The tables contain results from all the sessions, both fixed and mobile.

As was indicated in Volume 1, tables of station positions by experiment and correlations between geocentric components are available in machine-readable form through the CDP-DIS.

This report covers much of the data used in Clark et al., Determination of Relative Site Motions in the Western United States Using Mark III Very Long Baseline Interferometry, Journal of Geophysical Research, vol. 92, no. B12, November 10, 1987. Several points should be noted in comparing these two sets of results. Clark et al. include data from 1987 not included here. The source and site positions used by Clark et al. to determine their earth orientation series are derived from 1979 - 1984 CDP and POLARIS data and no adjustment to the nutation model is estimated. The same source positions are used a priori to analyze each mobile experiment separately. This report uses the more recent earth orientation series given in Volume 1, which includes nutation offset estimates, and the source positions are adjusted globally.

Table 1

## Mobile VLBI Sites

| Site Name | Monument | Location            | Lat.   | Long.   |
|-----------|----------|---------------------|--------|---------|
| BLKBUTTE  | 7269     | Black Butte, CA     | 33°40' | 244°17' |
| DEADMANL  | 7267     | Deadman Lake, CA    | 34°15' | 243°43' |
| ELY       | 7286     | Ely, NV             | 39°18' | 245°09' |
| FLAGSTAF  | 7261     | Flagstaff, AZ       | 35°13' | 248°22' |
| FORT ORD  | 7266     | Sand City, CA       | 36°40' | 238°14' |
| JPL MV1   | 7263     | Pasadena, CA        | 34°12' | 241°50' |
| KODIAK    | 7278     | Kodiak, AK          | 57°44' | 207°30' |
| MAMMOTHL  | 7259     | Mammoth Lakes, CA   | 37°38' | 241°04' |
| MON PEAK  | 7274     | Monument Peak, CA   | 32°53' | 243°35' |
| NOME      | 7279     | Nome, AK            | 64°34' | 194°38' |
| OCOTILLO  | 7270     | Ocotillo, CA        | 32°47' | 244°12' |
| PBLOSSOM  | 7254     | Pearblossom, CA     | 34°31' | 242°05' |
| PENTICTN  | 7283     | Penticton, B. C.    | 49°19' | 240°23' |
| PINFLATS  | 7256     | Pinyon Flats, CA    | 33°37' | 243°33' |
| PLATTVIL  | 7258     | Platteville, CO     | 40°11' | 255°16' |
| PRESIDIO  | 7283     | San Francisco, CA   | 37°48' | 237°33' |
| PT REYES  | 7251     | Point Reyes, CA     | 38°06' | 237°04' |
| PVERDES   | 7268     | Palo Verdes, CA     | 33°45' | 241°36' |
| QUINCY    | 7221     | Quincy, CA          | 39°58' | 239°04' |
| SANPAULA  | 7255     | Santa Paula, CA     | 34°23' | 241°00' |
| SNDPOINT  | 7280     | Sand Point, AK      | 55°21' | 199°31' |
| SOURDOGH  | 7281     | Sourdough, AK       | 63°40' | 214°31' |
| VNDNBURG  | 7111     | Vandenberg AFB, CA  | 34°34' | 239°30' |
| VERNAL    | 7290     | Vernal, UT          | 40°20' | 250°26' |
| WHTHORSE  | 7284     | Whitehorse, Yuk. T. | 60°43' | 224°55' |
| YAKATAGA  | 7277     | Cape Yakataga, AK   | 60°05' | 217°31' |
| YELLOWKN  | 7285     | Yellowknife, NWT    | 62°29' | 245°32' |
| YUMA      | 7894     | Yuma, AZ            | 32°54' | 245°40' |

TABLE 2  
SUMMARY OF MOBILE VLBI EXPERIMENTS

(CONTINUÉ)

TABLE 2 (CONT'D)

| STATIONS   | DATABASE NAME |
|------------|---------------|
| YUMA       | 84APR17X      |
| YELLOW N   | 84APR22X      |
| YAKATAGA   | 84APR25X      |
| WESTHORSE  | 84APR26X      |
| WESTFORDE  | 84JUL14XX     |
| VENDNERG   | 84JUL23XX     |
| VERNAL     | 84JUL31XX     |
| SOURDOG    | 84AUG07X      |
| SANDPOINT  | 84OCT22X      |
| SANPAULA   | 84OCT28X      |
| OUTNEY     | 84OCT31X      |
| PVERDEES   | 84JAN09X      |
| PRESEYES   | 85JAN12X      |
| PLATEAU    | 85JAN15X      |
| PINEFLATS  | 85JAN18X      |
| PBLLOSSON  | 85MAR01X      |
| ONSA1300   | 85MAR04X      |
| NOCITO1600 | 85MAR07X      |
| NOME       | 85MAR10X      |
| MONPEAK    | 85MAR13XR     |
| MOJAVE12   | 85MAY02X      |
| MAMMOTH    | 85MAY06X      |
| KODIAK     | 85MAY07XA     |
| JPLMV1     | 85MAY12X      |
| HARAS085   | 85MAY14X      |
| HAYSTACK   | 85JUL18X      |
| HATCREEK   | 85JUL25X      |
| GOLDGREEN  | 85AUG05X      |
| GILCREEK   | 85AUG12X      |
| FORSTORD   | 85AUG28X      |
| ELYSTAFF   | 85SEP04X      |
| DEADMAN    | 85OCT19X      |
| BLKBUTTE   | 85OCT23X      |
| ALGOPARK   |               |

TABLE 2 (CONT'D)

| STATIONS   | DATABASE NAME |
|------------|---------------|
| YUMA       | 85OCT27X      |
| YELLOW     | 85OCT30X      |
| WAKATO     | 85NOV02X      |
| WESTHORSE  | 85NOV05X      |
| WESTFORDE  | 85DEC12X      |
| VENDNERG   | 86JAN05X      |
| VERNBERG   | 86FEB23X      |
| SOURNAIL   | 86FEB26X      |
| SANDPOINT  | 86MAR26X      |
| SANDPAUL   | 86APR01X      |
| QUINCY     | 86APR02X      |
| PERRYDES   | 86APR07X      |
| PRESIDIO   | 86APR10X      |
| PLATETYL   | 86APR13X      |
| PENITIAT   | 86MAY18X      |
| OBLLOSSOM  | 86MAY21X      |
| OCOTILLA   | 86JUL24X      |
| MONOME     | 86JUL24X      |
| MOJAVEPEAK | 86AUG11X      |
| KAMMOTH    | 86AUG13X      |
| KODIAK     | 86AUG18X      |
| JPLMV1     | 86AUG20X      |
| HARALSO    | 86OCT19X      |
| HAWAIIAC85 | 86OCT22X      |
| GATCREEK   | 86NOV01X      |
| GOLDGREENU | 86NOV04X      |
| GILCREEK   | 86DEC10X      |
| FORTSTARD  | 86DEC13X      |
| FLAGSTARD  | 86DEC16X      |
| DEADMAN    |               |
| BLACKBURN  |               |
| OPARAE     |               |
| ALGOPARAE  |               |

Table 3  
Source Coordinates from GLB171 Solution

| Source Name | Right Ascension |    |          | sigma s | Declination |    |         | sigma " |
|-------------|-----------------|----|----------|---------|-------------|----|---------|---------|
|             | h               | m  | s        |         | °           | '  | "       |         |
| 0106+013    | 1               | 8  | 38.77108 | .00001  | 1           | 35 | .3195   | .0003   |
| 0212+735    | 2               | 17 | 30.81371 | .00005  | 73          | 49 | 32.6222 | .0003   |
| 4C67.05     | 2               | 28 | 50.05178 | .00004  | 67          | 21 | 3.0299  | .0003   |
| 0229+131    | 2               | 31 | 45.89410 | .00001  | 13          | 22 | 54.7176 | .0003   |
| 0234+285    | 2               | 37 | 52.40575 | .00001  | 28          | 48 | 8.9906  | .0003   |
| 0235+164    | 2               | 38 | 38.93014 | .00001  | 16          | 36 | 59.2758 | .0004   |
| 0300+470    | 3               | 3  | 35.24234 | .00002  | 47          | 16 | 16.2764 | .0003   |
| 3C84        | 3               | 19 | 48.16019 | .00002  | 41          | 30 | 42.1023 | .0003   |
| NRAO150     | 3               | 59 | 29.74740 | .00002  | 50          | 57 | 50.1616 | .0002   |
| 0420-014    | 4               | 23 | 15.80073 | .00001  | -1          | 20 | 33.0642 | .0003   |
| 3C120       | 4               | 33 | 11.09557 | .00002  | 5           | 21 | 15.6167 | .0007   |
| 0454-234    | 4               | 57 | 3.17926  | .00003  | -23         | 24 | 52.0188 | .0005   |
| 0528+134    | 5               | 30 | 56.41678 | .00001  | 13          | 31 | 55.1490 | .0002   |
| 0552+398    | 5               | 55 | 30.80567 | .00002  | 39          | 48 | 49.1642 | .0002   |
| 0727-115    | 7               | 30 | 19.11250 | .00001  | -11         | 41 | 12.6007 | .0003   |
| 0742+103    | 7               | 45 | 33.05953 | .00010  | 10          | 11 | 12.6882 | .0028   |
| OJ287       | 8               | 54 | 48.87491 | .00001  | 20          | 6  | 30.6396 | .0002   |
| 4C39.25     | 9               | 27 | 3.01384  | .00001  | 39          | 2  | 20.8506 | .0002   |
| OK290       | 9               | 56 | 49.87540 | .00002  | 25          | 15 | 16.0475 | .0008   |
| 1034-293    | 10              | 37 | 16.07990 | .00004  | -29         | 34 | 2.8108  | .0006   |
| 1127-145    | 11              | 30 | 7.05230  | .00196  | -14         | 49 | 27.3844 | .0245   |
| 1144+402    | 11              | 46 | 58.29782 | .00001  | 39          | 58 | 34.3042 | .0003   |
| 1219+285    | 12              | 21 | 31.69049 | .00002  | 28          | 13 | 58.4992 | .0008   |
| 3C273B      | 12              | 29 | 6.6997   | *       | 2           | 3  | 8.5988  | .0003   |
| 3C279       | 12              | 56 | 11.16650 | .00002  | -5          | 47 | 21.5245 | .0006   |
| 1308+326    | 13              | 10 | 28.66378 | .00001  | 32          | 20 | 43.7828 | .0003   |
| 1354+195    | 13              | 57 | 4.43659  | .00001  | 19          | 19 | 7.3726  | .0003   |
| OQ208       | 14              | 7  | .39432   | .00001  | 28          | 27 | 14.6900 | .0003   |
| 1418+546    | 14              | 19 | 46.59719 | .00003  | 54          | 23 | 14.7874 | .0003   |
| 1502+106    | 15              | 4  | 24.97974 | .00001  | 10          | 29 | 39.2005 | .0003   |
| 1510-089    | 15              | 12 | 50.52619 | .00261  | -9          | 5  | 59.8302 | .0117   |
| 1548+056    | 15              | 50 | 35.26920 | .00001  | 5           | 27 | 10.4508 | .0003   |
| CTD93       | 16              | 9  | 13.32023 | .00034  | 26          | 41 | 28.9579 | .0092   |
| 1633+38     | 16              | 35 | 15.49283 | .00004  | 38          | 8  | 4.5025  | .0006   |
| 1637+574    | 16              | 38 | 13.45614 | .00003  | 57          | 20 | 23.9807 | .0003   |
| 1642+690    | 16              | 42 | 7.84825  | .00005  | 68          | 56 | 39.7577 | .0002   |
| 3C345       | 16              | 42 | 58.80985 | .00001  | 39          | 48 | 36.9954 | .0002   |
| NRAO530     | 17              | 33 | 2.70576  | .00001  | -13         | 4  | 49.5448 | .0003   |
| 1741-038    | 17              | 43 | 58.85614 | .00001  | -3          | 50 | 4.6128  | .0003   |
| 1749+701    | 17              | 48 | 32.84029 | .00020  | 70          | 5  | 50.7677 | .0007   |
| 1749+096    | 17              | 51 | 32.81853 | .00001  | 9           | 39 | .7317   | .0003   |
| 1803+784    | 18              | 0  | 45.68347 | .00009  | 78          | 28 | 4.0198  | .0002   |
| 3C390.3     | 18              | 42 | 8.98963  | .00043  | 79          | 46 | 17.1282 | .0009   |
| 1921-293    | 19              | 24 | 51.05591 | .00002  | -29         | 14 | 30.1170 | .0004   |
| 1923+210    | 19              | 25 | 59.60535 | .00002  | 21          | 6  | 26.1623 | .0009   |

|          |    |    |          |        |     |    |         |       |
|----------|----|----|----------|--------|-----|----|---------|-------|
| 1928+738 | 19 | 27 | 48.49472 | .00015 | 73  | 58 | 1.5726  | .0009 |
| 3C418    | 20 | 38 | 37.03477 | .00003 | 51  | 19 | 12.6655 | .0003 |
| 2134+00  | 21 | 36 | 38.58632 | .00001 | 0   | 41 | 54.2168 | .0003 |
| 2145+067 | 21 | 48 | 5.45867  | .00001 | 6   | 57 | 38.6071 | .0003 |
| VR422201 | 22 | 2  | 43.29139 | .00002 | 42  | 16 | 39.9824 | .0002 |
| 2201+315 | 22 | 3  | 14.97580 | .00004 | 31  | 45 | 38.2735 | .0008 |
| 2216-038 | 22 | 18 | 52.03773 | .00001 | -3  | 35 | 36.8759 | .0003 |
| 2234+282 | 22 | 36 | 22.47090 | .00001 | 28  | 28 | 57.4159 | .0003 |
| 3C454.3  | 22 | 53 | 57.74796 | .00001 | 16  | 8  | 53.5635 | .0003 |
| 2345-167 | 23 | 48 | 2.60848  | .00002 | -16 | 31 | 12.0184 | .0004 |

\* The right ascension origin of the CDP celestial reference frame  
is fixed by the adopted value of 3C273B given above.

TABLE 4.1  
VLBI BASELINE LENGTH EVOLUTION  
ALGOPARK TO PENTICTN(7283)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 24 | 307423463.9    | 1.8        | 107            | 167   |
| 85 8 28 | 307423463.3    | 2.6        | 47             | 56    |
| 85 9 4  | 307423467.8    | .6         | 160            | 184   |

LENGTH:

Mean = 307423467.2  $\pm$  1.0 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 1.4 cm

TABLE 4.2  
VLBI BASELINE LENGTH EVOLUTION  
ALGOPARK TO YELLOWKN(7285)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 24 | 291229600.0    | 1.2        | 132            | 172   |
| 85 9 4  | 291229604.0    | .9         | 164            | 180   |

LENGTH:

Mean = 291229602.4  $\pm$  2.0 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 2.0 cm

TABLE 4.3  
VLBI BASELINE LENGTH EVOLUTION  
BLKBUTTE(7269) TO HRAS 085

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 8  | 115801811.7    | 1.8        | 41             | 56    |
| 86 5 18  | 115801814.3    | .3         | 70             | 72    |
| 86 10 26 | 115801813.0    | .3         |                |       |

LENGTH:

Mean = 115801813.6  $\pm$  .5 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .7 cm  
Slope =  $-.3 \pm 1.1$  cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .7 cm

TABLE 4.4  
VLBI BASELINE LENGTH EVOLUTION  
BLKBUTTE(7269) TO MOJAVE12

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 8  | 21386883.0     | 2.3        | 39             | 55    |
| 83 11 10 | 21386882.7     | 2.0        | 47             | 60    |
| 84 3 3   | 21386884.5     | .9         | 90             | 92    |
| 85 1 12  | 21386884.9     | .9         | 79             | 96    |
| 85 1 15  | 21386883.4     | .7         | 82             | 93    |
| 86 5 18  | 21386884.8     | .3         | 83             | 84    |
| 86 10 26 | 21386885.0     | .3         | 100            | 100   |

LENGTH:

Mean = 21386884.8  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm  
 Slope = .5  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 4.5  
VLBI BASELINE LENGTH EVOLUTION  
BLKBUTTE(7269) TO MON PEAK(7274)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 8  | 10782185.1     | 1.4        | 12             | 59    |
| 85 1 12  | 10782183.0     | 1.6        | 8              | 55    |
| 86 5 18  | 10782185.4     | .4         |                |       |
| 86 10 26 | 10782184.0     | .4         |                |       |

LENGTH:

Mean = 10782184.7  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope = -.3  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.6  
VLBI BASELINE LENGTH EVOLUTION  
BLKBUTTE(7269) TO OCOTILLO(7270)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 3 3  | 9716017.2      | 2.4        | 11             | 41    |
| 85 1 15 | 9716022.6      | .9         | 16             | 91    |

LENGTH:

Mean = 9716021.9  $\pm$  1.8 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm

TABLE 4.7  
VLBI BASELINE LENGTH EVOLUTION  
BLKBUTTE(7269) TO OVRO 130

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 86 5 18  | 45906751.5     | .3         | 37             | 40    |
| 86 10 26 | 45906751.9     | .3         | 49             | 51    |

LENGTH:

Mean = 45906751.7  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .2 cm

TABLE 4.8  
VLBI BASELINE LENGTH EVOLUTION  
BLKBUTTE(7269) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 8  | 46236756.6     | 1.9        | 10             | 54    |
| 83 11 10 | 46236760.2     | 1.8        | 12             | 63    |
| 84 3 3   | 46236765.5     | 2.4        | 2              | 84    |
| 85 1 12  | 46236762.2     | .7         | 48             | 83    |
| 85 1 15  | 46236761.0     | .6         | 71             | 91    |
| 86 5 18  | 46236766.7     | .3         | 79             | 83    |
| 86 10 26 | 46236767.0     | .3         | 94             | 97    |

LENGTH:

Mean = 46236765.8  $\pm$  .9 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.2 cm  
 Slope = 3.0  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.9  
VLBI BASELINE LENGTH EVOLUTION  
DEADMANL(7267) TO MOJAVE12

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 84 2 29 | 13180679.1     | 2.5        | 65                         | 79                      |
| 85 1 9  | 13180680.6     | 1.7        | 42                         | 94                      |

LENGTH:

Mean = 13180680.1  $\pm$  .7 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .7 cm

TABLE 4.10  
VLBI BASELINE LENGTH EVOLUTION  
DEADMANL(7267) TO SANPAULA(7255)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 84 2 29 | 25075870.6     | 2.4        |                            |                         |
| 85 1 9  | 25075875.8     | 1.2        | 3                          | 78                      |

LENGTH:

Mean = 25075874.8  $\pm$  2.1 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 2.1 cm

TABLE 4.11  
VLBI BASELINE LENGTH EVOLUTION  
DEADMANL(7267) TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 84 2 29 | 40013417.5     | 2.4        | 7                          | 81                      |
| 85 1 9  | 40013414.6     | 1.2        | 16                         | 81                      |

LENGTH:

Mean = 40013415.2  $\pm$  1.1 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 1.1 cm

TABLE 4.12  
VLBI BASELINE LENGTH EVOLUTION  
ELY(7286) TO HATCREEK

| DATE   | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|--------|----------------|------------|----------------|-------|
|        |                |            | WEIGHTED       | TOTAL |
| 85 5 6 | 59002582.9     | .4         | 57             | 63    |
| 86 4 2 | 59002583.4     | .3         | 54             | 57    |

LENGTH:

Mean = 59002583.2  $\pm$  .3 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .3 cm

TABLE 4.13  
VLBI BASELINE LENGTH EVOLUTION  
ELY(7286) TO HRAS 085

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 4 22 | 137854706.4    | 1.0        | 57             | 78    |
| 85 5 6  | 137854708.9    | .6         | 73             | 77    |
| 86 4 2  | 137854707.8    | .4         | 56             | 63    |

LENGTH:

Mean = 137854708.0  $\pm$  .5 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .7 cm  
Slope = .2  $\pm$  .8 cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .7 cm

TABLE 4.14  
VLBI BASELINE LENGTH EVOLUTION  
ELY(7286) TO MOJAVE12

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 4 22 | 47551726.5     | .7         | 69             | 76    |
| 85 5 6  | 47551726.0     | .5         | 74             | 76    |
| 86 4 2  | 47551724.5     | .5         | 48             | 57    |

LENGTH:

Mean = 47551725.5  $\pm$  .6 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .9 cm  
Slope = -1.1  $\pm$  .3 cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .3 cm

TABLE 4.15  
VLBI BASELINE LENGTH EVOLUTION  
ELY(7286) TO OVRO 130

| DATE   | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|--------|----------------|------------|----------------|-------|
|        |                |            | WEIGHTED       | TOTAL |
| 86 4 2 | 37814055.6     | .3         | 44             | 54    |

TABLE 4.16  
VLBI BASELINE LENGTH EVOLUTION  
FLAGSTAF(7261) TO HATCREEK

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 4 17 | 106220933.2    | 1.7        | 30             | 59    |
| 85 5 2  | 106220937.5    | .4         | 89             | 94    |
| 86 3 26 | 106220938.6    | .4         | 53             | 59    |

LENGTH:

Mean = 106220938.0  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = 1.7  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 4.17  
VLBI BASELINE LENGTH EVOLUTION  
FLAGSTAF(7261) TO HRAS 085

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 4 17 | 87928307.6     | 1.5        | 19             | 62    |
| 85 5 2  | 87928310.1     | .4         | 90             | 97    |
| 86 3 26 | 87928310.8     | .3         | 60             | 60    |

LENGTH:

Mean = 87928310.4  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = 1.0  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 4.18  
VLBI BASELINE LENGTH EVOLUTION  
FLAGSTAF(7261) TO MOJAVE12

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 4 17 | 47805016.7     | 1.3        | 34             | 65    |
| 85 5 2  | 47805018.3     | .3         | 86             | 92    |
| 86 3 26 | 47805018.4     | .3         | 45             | 47    |

LENGTH:

Mean = 47805018.3  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .3 cm  
 Slope = .3  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 4.19  
VLBI BASELINE LENGTH EVOLUTION  
FORT ORD TO HATCREEK

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 84 2 23  | 46111134.6     | 1.0        | 34             | 42    |
| 85 3 10  | 46111129.3     | .4         | 42             | 47    |
| 85 10 23 | 46111128.4     | .7         | 59             | 66    |

LENGTH:

Mean = 46111129.6  $\pm$  1.2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm  
 Slope = -3.5  $\pm$  1.1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.20  
VLBI BASELINE LENGTH EVOLUTION  
FORT ORD TO HRAS 085

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 85 3 10  | 177467561.5    | .4         | 52             | 56    |
| 85 10 23 | 177467566.3    | .7         | 56             | 65    |

LENGTH:

Mean = 177467562.4  $\pm$  1.8 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm

TABLE 4.21  
VLBI BASELINE LENGTH EVOLUTION  
FORT ORD TO MOJAVE12

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 25  | 46471953.7     | .7         | 49             | 75    |
| 84 2 23  | 46471953.0     | .9         | 40             | 49    |
| 85 3 10  | 46471957.1     | .3         | 59             | 75    |
| 85 10 23 | 46471959.7     | .5         | 92             | 99    |

LENGTH:

Mean = 46471957.0  $\pm$  1.2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.0 cm  
 Slope = 2.9  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 4.22  
VLBI BASELINE LENGTH EVOLUTION  
FORT ORD TO OVRO 130

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 25  | 31706728.5     | .4         | 60             | 62    |
| 84 2 23  | 31706729.6     | 1.1        |                |       |
| 85 3 10  | 31706730.2     | .3         | 36             | 38    |
| 85 10 23 | 31706731.5     | .5         |                |       |

LENGTH:

Mean = 31706729.9  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = 1.2  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 4.23  
VLBI BASELINE LENGTH EVOLUTION  
FORT ORD TO PRESIDIO(7283)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 25  | 13978742.7     | 1.0        | 13             | 73    |
| 85 3 10  | 13978745.0     | 1.1        |                |       |
| 85 10 23 | 13978741.0     | .7         |                |       |

LENGTH:

Mean = 13978742.3 + 1.1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.6 cm  
 Slope = -.8 + 1.1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.4 cm

TABLE 4.24  
VLBI BASELINE LENGTH EVOLUTION  
FORT ORD TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 25  | 25685242.4     | .7         | 41             | 76    |
| 84 2 23  | 25685242.2     | 1.1        | 6              | 33    |
| 85 3 10  | 25685242.9     | .5         | 64             | 73    |
| 85 10 23 | 25685243.8     | .8         |                |       |

LENGTH:

Mean = 25685242.9 + .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm  
 Slope = .6 + .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

**TABLE 4.25**  
**VLBI BASELINE LENGTH EVOLUTION**  
**GILCREEK TO KODIAK(7278)**

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 23 | 84855360.3     | 1.1        | 108            | 256   |
| 85 7 18 | 84855361.4     | .9         | 136            | 143   |
| 86 7 22 | 84855361.1     | .6         | 144            | 147   |
| 86 7 24 | 84855359.9     | .7         | 122            | 124   |

**LENGTH:**

Mean = 84855360.7  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = -.1  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

**TABLE 4.26**  
**VLBI BASELINE LENGTH EVOLUTION**  
**GILCREEK TO NOME(7279)**

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 14 | 84826383.7     | .4         | 225            | 254   |
| 84 7 23 | 84826384.2     | .4         | 211            | 228   |
| 85 7 18 | 84826385.4     | .8         | 145            | 160   |
| 85 7 25 | 84826384.4     | .5         | 126            | 176   |
| 86 7 22 | 84826385.3     | .6         | 95             | 116   |
| 86 7 24 | 84826384.7     | .5         | 110            | 128   |
| 86 7 31 | 84826383.6     | .4         | 166            | 172   |

**LENGTH:**

Mean = 84826384.2  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = .2  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 4.27  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO PENTICTN(7283)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 24 | 237417571.5    | 1.7        | 125            | 166   |
| 85 9 4  | 237417572.6    | .7         | 167            | 190   |

LENGTH:

Mean = 237417572.4  $\pm$  .4 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .4 cm

TABLE 4.28  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO PLATTVIL(7258)

| DATE   | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|--------|----------------|------------|----------------|-------|
|        |                |            | WEIGHTED       | TOTAL |
| 85 5 7 | 381042431.8    | .8         | 61             | 73    |
| 86 4 1 | 381042435.1    | .8         | 66             | 71    |

LENGTH:

Mean = 381042433.4  $\pm$  1.6 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 1.6 cm

TABLE 4.29  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO SNDPOINT(7280)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 14 | 128447779.5    | 1.8        | 49             | 88    |
| 85 7 25 | 128447781.5    | .7         | 143            | 161   |
| 86 7 31 | 128447781.6    | .7         | 157            | 165   |

LENGTH:

Mean = 128447781.4  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm  
 Slope = .6  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 4.30  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO SOURDOUGH(7281)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 31 | 27637819.5     | .4         | 200            | 222   |
| 84 8 7  | 27637818.6     | .9         | 233            | 261   |
| 85 8 5  | 27637818.6     | .4         | 175            | 191   |
| 85 8 12 | 27637818.7     | .3         | 166            | 186   |
| 86 8 11 | 27637818.7     | .4         | 134            | 145   |
| 86 8 13 | 27637818.9     | .4         | 130            | 137   |
| 86 8 18 | 27637818.7     | .3         | 146            | 147   |
| 86 8 20 | 27637819.3     | .3         | 133            | 140   |

LENGTH:

Mean = 27637818.9  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .3 cm  
 Slope = -.1  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 4.31  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 84 7 7   | 377584970.5    | 1.2        | 81             | 141   |
| 84 7 14  | 377584975.0    | 3.2        | 31             | 53    |
| 84 7 21  | 377584973.3    | 1.1        | 104            | 123   |
| 84 7 22  | 377584971.2    | .8         | 114            | 128   |
| 84 7 23  | 377584976.3    | 1.0        | 108            | 138   |
| 84 7 31  | 377584967.9    | 1.9        | 99             | 123   |
| 84 8 7   | 377584979.9    | 2.3        | 131            | 144   |
| 85 5 15  | 377584966.5    | .6         | 103            | 110   |
| 85 7 6   | 377584963.6    | .8         | 177            | 192   |
| 85 7 18  | 377584966.5    | 2.0        | 30             | 72    |
| 85 7 20  | 377584967.3    | .6         | 116            | 124   |
| 85 7 25  | 377584963.5    | 1.1        | 155            | 169   |
| 85 7 27  | 377584965.5    | .8         | 141            | 181   |
| 85 8 5   | 377584962.7    | 1.1        | 166            | 178   |
| 85 8 10  | 377584968.0    | .6         | 118            | 130   |
| 85 8 12  | 377584967.0    | 1.2        | 171            | 186   |
| 85 9 30  | 377584965.0    | .4         | 125            | 135   |
| 86 7 5   | 377584961.4    | .6         | 206            | 210   |
| 86 7 12  | 377584959.7    | .6         | 158            | 172   |
| 86 7 22  | 377584960.0    | .9         | 130            | 143   |
| 86 7 24  | 377584959.3    | .9         | 127            | 134   |
| 86 7 26  | 377584960.9    | .4         | 219            | 243   |
| 86 7 31  | 377584962.6    | .7         | 184            | 194   |
| 86 8 2   | 377584962.1    | .4         | 161            | 192   |
| 86 8 11  | 377584964.0    | 1.0        | 93             | 115   |
| 86 8 13  | 377584961.8    | 1.0        | 134            | 137   |
| 86 8 18  | 377584960.2    | .9         | 136            | 143   |
| 86 8 20  | 377584960.3    | .9         | 116            | 132   |
| 86 10 23 | 377584961.3    | .5         | 108            | 111   |

LENGTH:

Mean = 377584963.8 + .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 3.8 cm  
 Slope = -5.1 + .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.6 cm

TABLE 4.32  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO WHTHORSE(7284)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 7  | 78886990.7     | 1.6        | 94             | 227   |
| 86 8 18 | 78886989.8     | .5         | 138            | 140   |
| 86 8 20 | 78886989.9     | .5         | 116            | 126   |

LENGTH:

Mean = 78886989.9 + .1 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .2 cm

TABLE 4.33  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO YAKATAGA(7277)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 31 | 60304905.7     | .7         | 153            | 211   |
| 85 8 5  | 60304901.6     | .6         | 185            | 193   |
| 86 8 11 | 60304899.4     | .6         | 143            | 148   |
| 86 8 13 | 60304896.5     | .7         | 104            | 117   |

LENGTH:

Mean = 60304900.8 + 1.7 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 3.0 cm  
Slope = -3.6 + .7 cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = 1.0 cm

TABLE 4.34  
VLBI BASELINE LENGTH EVOLUTION  
GILCREEK TO YELLOWKN(7285)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 24 | 163119364.8    | .8         | 151            | 170   |
| 85 9 4  | 163119366.2    | .6         | 172            | 185   |

LENGTH:

Mean = 163119365.6 + .7 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .7 cm

TABLE 4.35  
VLBI BASELINE LENGTH EVOLUTION  
GOLDVENU TO HRAS 085

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 6 21  | 130237395.0    | .8         | 45             | 87    |
| 82 10 23 | 130237395.1    | .5         | 86             | 94    |

LENGTH:

Mean = 130237395.1  $\pm$  .0 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .0 cm

TABLE 4.36  
VLBI BASELINE LENGTH EVOLUTION  
GOLDVENU TO MOJAVE12

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 8 27 | 1256724.1      | .9         | 36             | 70    |
| 84 1 7  | 1256722.4      | .1         | 114            | 138   |
| 84 1 14 | 1256722.9      | .4         | 67             | 140   |

LENGTH:

Mean = 1256722.5  $\pm$  .2 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .2 cm

TABLE 4.37  
VLBI BASELINE LENGTH EVOLUTION  
GOLDVENU TO ONSALA60

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 82 6 16 | 802492811.7    | 2.6        | 27             | 68    |
| 82 6 21 | 802492807.4    | 3.0        | 19             | 56    |

LENGTH:

Mean = 802492809.8  $\pm$  2.1 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 2.1 cm

TABLE 4.38  
VLBI BASELINE LENGTH EVOLUTION  
GOLDVENU TO OVRO 130

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 6 16  | 25758745.4     | .4         | 53             | 101   |
| 82 6 21  | 25758744.5     | .8         | 39             | 77    |
| 82 10 23 | 25758745.4     | .4         | 86             | 94    |
| 83 8 27  | 25758748.0     | .9         | 71             | 81    |

LENGTH:

Mean = 25758745.5 + .5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope = 2.1 + .7 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 4.39  
VLBI BASELINE LENGTH EVOLUTION  
GOLDVENU TO PRESIDIO(7283)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 8 27 | 58065762.8     | 1.3        | 43             | 75    |

TABLE 4.40  
VLBI BASELINE LENGTH EVOLUTION  
GOLDVENU TO PT REYES(7251)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 8 27 | 63348374.8     | 1.0        | 54             | 70    |

TABLE 4.41  
VLBI BASELINE LENGTH EVOLUTION  
GOLDVENU TO QUINCY(7221)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 10 23 | 63955678.2     | .7         | 84             | 93    |

**TABLE 4.42**  
**VLBI BASELINE LENGTH EVOLUTION**  
**GOLDVENU TO VNDNBERG(7111)**

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 83 8 27 | 35756324.9     | .8         | 64                         | 79                      |

**TABLE 4.43**  
**VLBI BASELINE LENGTH EVOLUTION**  
**GOLDVENU TO WESTFORD**

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 82 6 16 | 390044551.6    | 1.2        | 66                         | 104                     |
| 82 6 21 | 390044548.4    | 1.6        | 39                         | 104                     |

LENGTH:

Mean = 390044550.4 + 1.6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.6 cm

**TABLE 4.44**  
**VLBI BASELINE LENGTH EVOLUTION**  
**HATCREEK TO JPL MV1(7263)**

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 83 6 29 | 78907003.3     | .5         | 79                         | 108                     |

**TABLE 4.45**  
**VLBI BASELINE LENGTH EVOLUTION**  
**HATCREEK TO MAMMOTH(7259)**

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 83 6 29 | 41453590.1     | 1.2        | 32                         | 62                      |

TABLE 4.46  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO MON PEAK(7274)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 6 27  | 98681534.6     | .9         | 30             | 67    |
| 84 4 12  | 98681530.9     | .6         | 65             | 69    |
| 85 3 1   | 98681531.3     | .6         | 18             | 20    |
| 85 5 12  | 98681528.9     | .6         |                |       |
| 85 12 12 | 98681526.4     | .6         | 48             | 55    |
| 86 4 7   | 98681527.2     | .5         | 40             | 42    |
| 86 5 21  | 98681526.2     | .5         | 45             | 46    |
| 86 10 19 | 98681523.7     | .7         |                |       |
| 86 10 29 | 98681526.2     | .8         | 44             | 59    |
| 86 12 10 | 98681524.7     | .5         | 57             | 58    |

LENGTH:

Mean = 98681527.6  $\pm$  .9 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.8 cm  
 Slope = -2.7  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .9 cm

TABLE 4.47  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO PLATTVIL(7258)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 6 6  | 141631408.9    | 2.2        | 9              | 20    |
| 83 6 7  | 141631403.9    | .9         | 9              | 42    |
| 83 6 9  | 141631404.7    | 1.4        | 26             | 90    |
| 84 4 17 | 141631406.4    | 1.0        | 89             | 99    |
| 84 4 25 | 141631406.9    | 1.1        | 50             | 59    |
| 84 4 26 | 141631402.7    | .8         | 58             | 76    |
| 85 5 2  | 141631405.3    | .3         | 98             | 102   |
| 85 5 6  | 141631404.7    | .4         | 78             | 92    |
| 85 5 7  | 141631404.1    | .6         | 72             | 85    |
| 86 3 26 | 141631405.8    | .5         | 51             | 61    |
| 86 3 30 | 141631407.2    | .6         | 50             | 56    |
| 86 4 1  | 141631407.3    | .4         | 68             | 80    |
| 86 4 2  | 141631405.2    | .8         | 21             | 31    |

LENGTH:

Mean = 141631405.6  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.3 cm  
 Slope = 1.0  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 4.48  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO PRESIDIO(7283)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 84 2 26  | 34499182.6     | 4.9        | 8                          | 29                      |
| 85 3 10  | 34499182.8     | 1.3        | 17                         | 54                      |
| 85 10 19 | 34499186.6     | .4         | 62                         | 64                      |
| 85 10 23 | 34499188.0     | .5         | 59                         | 63                      |

LENGTH:

Mean = 34499187.0  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope = 5.7  $\pm$  2.6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.49  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO PT REYES(7251)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 84 2 26  | 32662881.4     | 1.5        | 43                         | 54                      |
| 85 10 19 | 32662879.2     | .5         | 58                         | 65                      |

LENGTH:

Mean = 32662879.4  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm

TABLE 4.50  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO QUINCY(7221)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 6 27  | 10371224.6     | 1.0        | 28                         | 59                      |
| 84 4 12  | 10371225.2     | .7         | 53                         | 60                      |
| 85 5 12  | 10371224.8     | .5         | 65                         | 69                      |
| 86 10 19 | 10371224.6     | .6         | 22                         | 62                      |

LENGTH:

Mean = 10371224.8  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .2 cm  
 Slope = -.1  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 4.51  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO VERNAL(7290)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 86 3 30 | 100748944.6    | .5         | 47             | 52    |

TABLE 4.52  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 84 2 23  | 69870651.1     | .9         | 28             | 51    |
| 84 2 26  | 69870651.7     | 1.1        | 35             | 54    |
| 84 4 12  | 69870654.8     | .8         | 56             | 68    |
| 85 3 1   | 69870651.8     | .6         | 16             | 21    |
| 85 3 10  | 69870647.8     | .5         |                |       |
| 85 5 12  | 69870648.2     | .4         |                |       |
| 85 5 15  | 69870648.8     | .4         | 78             | 88    |
| 85 9 30  | 69870648.6     | .3         | 94             | 112   |
| 85 10 19 | 69870645.2     | .5         |                |       |
| 85 10 23 | 69870646.9     | .7         |                |       |
| 85 12 12 | 69870645.6     | .4         | 54             | 59    |
| 86 4 7   | 69870648.4     | 1.4        | 9              | 22    |
| 86 5 21  | 69870646.0     | .5         |                |       |
| 86 10 19 | 69870642.9     | .6         |                |       |
| 86 10 23 | 69870644.1     | .4         |                |       |
| 86 10 29 | 69870645.7     | .8         |                |       |
| 86 12 10 | 69870642.4     | .6         | 41             | 43    |

LENGTH:

Mean = 69870647.3  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.6 cm  
 Slope = -3.4  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.3 cm

TABLE 4.53  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO YUMA(7894)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 85 3 1   | 108607122.4    | .6         | 18             | 21    |
| 86 5 21  | 108607121.6    | .4         | 46             | 48    |
| 86 10 29 | 108607122.9    | .7         | 42             | 58    |
| 86 12 10 | 108607122.2    | .6         | 53             | 56    |

LENGTH:

Mean = 108607122.1  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm  
 Slope = -.0  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 4.54  
VLBI BASELINE LENGTH EVOLUTION  
HAYSTACK TO PLATTVIL(7258)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 6 6  | 275320538.3    | 3.4        | 4              | 20 *  |
| 83 6 9  | 275320539.0    | 2.1        | 23             | 90 *  |
| 84 4 26 | 275320535.5    | 1.3        | 54             | 80    |
| 85 5 7  | 275320535.3    | .8         | 47             | 73 *  |
| 86 4 1  | 275320539.3    | .7         | 75             | 79 *  |

LENGTH:

Mean = 275320537.4  $\pm$  1.0 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.9 cm  
 Slope = 1.1  $\pm$  1.0 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.7 cm

\* WESTFORD - PLATTVIL(7258) results mapped to  
HAYSTACK - PLATTVIL(7258)

TABLE 4.55  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO JPL MV1(7263)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 10 16 | 139141356.1    | 1.2        | 41             | 75    |
| 83 6 29  | 139141361.0    | .6         | 55             | 68    |

LENGTH:

Mean = 139141360.0  $\pm$  2.0 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.0 cm

TABLE 4.56  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO MAMMOTH(7259)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 6 29 | 158014379.1    | 1.1        | 24             | 50    |

TABLE 4.57  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO MON PEAK(7274)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 10 16 | 120575147.8    | .7         | 53             | 85    |
| 82 10 17 | 120575148.6    | .5         | 58             | 93    |
| 83 6 27  | 120575154.0    | .6         | 60             | 85    |
| 83 11 5  | 120575150.8    | .5         | 41             | 59    |
| 83 11 8  | 120575153.8    | .7         | 66             | 79    |
| 84 4 12  | 120575152.9    | .6         | 67             | 74    |
| 85 3 1   | 120575158.9    | .6         | 57             | 61    |
| 85 5 12  | 120575158.8    | .5         |                |       |
| 85 5 14  | 120575159.7    | .7         | 65             | 74    |
| 85 11 5  | 120575160.4    | .4         | 64             | 64    |
| 85 12 12 | 120575158.5    | .5         | 46             | 74    |
| 86 1 5   | 120575159.0    | .7         | 67             | 69    |
| 86 2 23  | 120575161.2    | .3         | 59             | 60    |
| 86 4 7   | 120575162.5    | .4         | 45             | 46    |
| 86 5 18  | 120575161.9    | .4         | 77             | 79    |
| 86 5 21  | 120575162.7    | .4         | 71             | 73    |
| 86 10 19 | 120575161.8    | .4         |                |       |
| 86 10 26 | 120575162.1    | .4         | 83             | 85    |
| 86 10 29 | 120575162.9    | .5         | 83             | 85    |
| 86 12 10 | 120575163.2    | .4         | 73             | 73    |

**LENGTH:**

Mean = 120575159.4  $\pm$  1.0 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 4.3 cm  
 Slope = 3.5  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.1 cm

TABLE 4.58  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO PENTICTN(7283)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 24 | 244335456.8    | 1.4        | 84             | 170   |
| 85 8 28 | 244335454.8    | 2.3        | 74             | 86    |
| 85 9 4  | 244335456.2    | .7         | 76             | 95    |

LENGTH:

Mean = 244335456.2 + .3 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .4 cm

TABLE 4.59  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO PINFLATS(7256)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 85 11 2  | 122329454.3    | .5         | 43             | 52    |
| 86 2 26  | 122329455.0    | .7         | 46             | 52    |
| 86 4 10  | 122329454.3    | .5         | 3              | 3     |
| 86 11 1  | 122329455.5    | .4         | 60             | 64    |
| 86 12 13 | 122329455.3    | .4         | 70             | 84    |

LENGTH:

Mean = 122329454.9 + .3 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .5 cm  
Slope = 1.1 + .3 cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .2 cm

TABLE 4.60  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO PLATTVIL(7258)

| DATE |      | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|------|----------------|------------|----------------|-------|
|      |      |                |            | WEIGHTED       | TOTAL |
| 83   | 6 6  | 106049963.5    | 3.3        | 7              | 21    |
| 83   | 6 9  | 106049962.7    | 1.8        | 43             | 87    |
| 84   | 4 17 | 106049967.0    | 1.1        | 49             | 100   |
| 84   | 4 22 | 106049964.1    | 1.5        | 49             | 94    |
| 84   | 4 25 | 106049968.4    | 1.3        | 29             | 66    |
| 84   | 4 26 | 106049965.3    | 1.0        | 2              | 48    |
| 85   | 5 2  | 106049963.8    | .5         | 100            | 107   |
| 85   | 5 6  | 106049965.2    | .6         | 99             | 105   |
| 85   | 5 7  | 106049964.9    | .8         | 81             | 87    |
| 86   | 3 26 | 106049964.5    | .5         | 64             | 66    |
| 86   | 3 30 | 106049964.6    | .6         | 71             | 76    |
| 86   | 4 1  | 106049965.8    | .5         | 83             | 86    |
| 86   | 4 2  | 106049966.2    | 1.5        | 23             | 31    |

LENGTH:

Mean = 106049965.0  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = -.1  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 4.61  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO PRESIDIO(7283)

| DATE |       | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|----------------|------------|----------------|-------|
|      |       |                |            | WEIGHTED       | TOTAL |
| 85   | 3 10  | 187058576.1    | .6         | 10             | 60    |
| 85   | 3 13  | 187058579.9    | .9         | 24             | 56    |
| 85   | 10 19 | 187058581.7    | .5         | 65             | 66    |
| 85   | 10 23 | 187058582.4    | .6         | 51             | 56    |

LENGTH:

Mean = 187058580.5  $\pm$  1.4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.4 cm

TABLE 4.62  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO PT REYES(7251)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 85 3 13  | 192101569.1    | .6         | 14             | 59    |
| 85 10 19 | 192101570.1    | .7         | 64             | 70    |

LENGTH:

Mean = 192101569.6  $\pm$  .5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm

TABLE 4.63  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO QUINCY(7221)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 10 23 | 184959141.9    | .8         | 56             | 100   |
| 83 6 27  | 184959143.1    | 1.0        | 36             | 75    |
| 84 4 12  | 184959139.7    | 1.3        | 38             | 68    |
| 85 5 12  | 184959142.4    | .4         | 69             | 70    |
| 85 5 14  | 184959141.4    | .8         | 60             | 68    |
| 86 10 19 | 184959141.7    | .6         | 73             | 78    |

LENGTH:

Mean = 184959142.0  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope = -.1  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.64  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO VERNAL(7290)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 86 3 30 | 118798134.4    | .6         | 61             | 62    |

TABLE 4.65  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 8  | 161771375.8    | 1.3        | 46             | 75    |
| 84 4 12  | 161771373.3    | .8         | 39             | 70    |
| 85 3 1   | 161771380.6    | .5         | 47             | 54    |
| 85 3 10  | 161771380.1    | .5         |                |       |
| 85 3 13  | 161771380.0    | .4         | 53             | 55    |
| 85 5 12  | 161771380.8    | .4         |                |       |
| 85 10 19 | 161771381.6    | .4         |                |       |
| 85 10 23 | 161771382.0    | .7         |                |       |
| 85 11 2  | 161771383.6    | .4         | 22             | 57    |
| 85 11 5  | 161771382.1    | .5         | 67             | 70    |
| 85 12 12 | 161771382.1    | .5         | 46             | 73    |
| 86 4 7   | 161771383.8    | 1.0        | 20             | 26    |
| 86 4 10  | 161771383.0    | .5         | 65             | 76    |
| 86 5 18  | 161771384.8    | .3         | 79             | 84    |
| 86 5 21  | 161771384.4    | .5         |                |       |
| 86 10 19 | 161771384.6    | .5         |                |       |
| 86 10 26 | 161771385.0    | .4         | 76             | 84    |
| 86 10 29 | 161771385.0    | .4         |                |       |
| 86 11 1  | 161771386.9    | .3         | 78             | 80    |
| 86 12 10 | 161771386.3    | .6         | 49             | 54    |
| 86 12 13 | 161771386.2    | .4         | 71             | 84    |

LENGTH:

Mean = 161771383.4  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.6 cm  
 Slope = 3.6  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.66  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO YELLOWKN(7285)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 24 | 357206988.2    | 1.4        | 127            | 175   |
| 85 9 4  | 357206987.4    | 1.1        | 80             | 93    |

LENGTH:

Mean = 357206987.7  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .4 cm

TABLE 4.67  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO YUMA(7894)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 5  | 100294936.7    | .8         | 32             | 56    |
| 85 3 1   | 100294938.5    | .4         | 58             | 60    |
| 85 11 2  | 100294939.4    | .6         | 50             | 54    |
| 85 11 5  | 100294938.2    | .4         | 65             | 70    |
| 86 4 10  | 100294938.2    | .4         | 65             | 74    |
| 86 5 21  | 100294940.0    | .4         | 78             | 80    |
| 86 10 29 | 100294938.4    | .3         | 81             | 82    |
| 86 11 1  | 100294939.3    | .3         | 68             | 75    |
| 86 12 10 | 100294938.9    | .4         | 70             | 72    |
| 86 12 13 | 100294937.9    | .4         | 75             | 84    |

LENGTH:

Mean = 100294938.7  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope = .3  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.68  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO MAMMOTH(7259)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 6 29  | 38764969.8     | 1.2        |                |       |
| 84 4 9   | 38764972.0     | 1.5        |                |       |
| 84 10 22 | 38764968.1     | 1.8        | 2              | 14    |
| 86 10 22 | 38764966.1     | .6         |                |       |

LENGTH:

Mean = 38764967.5  $\pm$  1.2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.1 cm  
 Slope = -1.4  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .9 cm

TABLE 4.69  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO MOJAVE12

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 6 29  | 17168640.2     | .3         | 84             | 110   |
| 83 8 22  | 17168644.0     | 1.0        | 37             | 56    |
| 83 10 29 | 17168645.8     | 1.1        | 67             | 88    |
| 83 10 31 | 17168644.8     | .9         | 50             | 74    |
| 84 2 20  | 17168647.3     | 2.4        | 24             | 37    |
| 84 4 9   | 17168643.7     | .7         | 25             | 25    |
| 84 10 22 | 17168642.2     | 1.2        | 67             | 107   |
| 84 10 25 | 17168641.9     | 1.4        | 41             | 101   |
| 85 1 18  | 17168643.0     | .8         | 40             | 53    |
| 85 3 7   | 17168643.4     | .5         | 50             | 90    |
| 85 10 27 | 17168645.1     | .4         | 89             | 98    |
| 85 10 30 | 17168644.4     | .6         | 96             | 97    |
| 86 4 13  | 17168643.1     | .3         | 90             | 91    |
| 86 10 22 | 17168643.4     | .4         | 74             | 76    |
| 86 11 4  | 17168643.1     | .3         | 87             | 95    |
| 86 12 16 | 17168643.0     | .4         | 73             | 79    |

LENGTH:

Mean = 17168643.0  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.4 cm  
 Slope = .6  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.3 cm

TABLE 4.70  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO MON PEAK(7274)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 10 16 | 21830773.5     | .9         | 24             | 92    |

TABLE 4.71  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO OVRO 130

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 82 10 16 | 33594148.1     | .9         | 51             | 87    |
| 82 10 21 | 33594146.6     | 5.8        | 32             | 93    |
| 83 2 21  | 33594145.2     | 1.1        | 31             | 43    |
| 83 6 29  | 33594140.9     | .4         | 83             | 102   |
| 83 8 22  | 33594142.9     | 1.5        | 33             | 40    |
| 83 10 31 | 33594145.0     | 1.2        | 46             | 63    |
| 84 2 20  | 33594147.5     | 2.6        | 17             | 25    |
| 84 4 9   | 33594144.7     | 1.1        | 25             | 25    |
| 84 10 22 | 33594141.8     | 1.4        | 32             | 54    |
| 84 10 25 | 33594142.2     | 1.7        | 32             | 54    |
| 85 3 7   | 33594140.3     | .6         | 23             | 48    |
| 85 10 27 | 33594141.4     | .5         | 48             | 52    |
| 85 10 30 | 33594140.6     | .7         | 47             | 57    |
| 86 4 13  | 33594137.5     | .4         | 48             | 49    |
| 86 10 22 | 33594139.6     | .5         | 38             | 42    |
| 86 11 4  | 33594137.3     | .4         | 46             | 47    |

LENGTH:

Mean = 33594140.2  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.6 cm  
 Slope = -1.5  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.7 cm

TABLE 4.72  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO PBLOSSOM(7254)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 2 21  | 4115567.7      | 1.1        | 13             | 43    |
| 83 8 22  | 4115570.5      | 1.1        |                |       |
| 84 2 20  | 4115571.9      | 2.6        |                |       |
| 84 10 25 | 4115567.5      | 1.6        |                |       |
| 85 3 7   | 4115567.9      | .5         |                |       |
| 85 10 27 | 4115569.1      | .6         |                |       |

LENGTH:

Mean = 4115568.6  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = -.1  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 4.73  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO PINFLATS(7256)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|----------|----------------|------------|----------------------------|-------|
| 83 10 31 | 17180507.7     | .9         | 12                         | 78    |
| 85 1 18  | 17180507.6     | 1.2        | 2                          | 89    |
| 85 10 30 | 17180509.0     | .6         |                            |       |
| 86 4 13  | 17180508.8     | .4         |                            |       |
| 86 11 4  | 17180509.5     | .4         |                            |       |
| 86 12 16 | 17180508.8     | .4         | 42                         | 86    |

LENGTH:

Mean = 17180508.9  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm  
 Slope = .5  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 4.74  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO QUINCY(7221)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|----------|----------------|------------|----------------------------|-------|
| 82 10 21 | 68570507.7     | 7.3        | 7                          | 69    |

TABLE 4.75  
VLBI BASELINE LENGTH EVOLUTION  
JPL MV1(7263) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 22  | 22803091.6     | 1.3        |                |       |
| 83 10 31 | 22803096.0     | 1.0        | 3              | 67    |
| 84 2 20  | 22803095.2     | 1.7        | 7              | 31    |
| 84 10 22 | 22803096.9     | 1.0        | 15             | 98    |
| 84 10 25 | 22803098.7     | 1.3        | 12             | 102   |
| 85 1 18  | 22803095.5     | .6         | 63             | 101   |
| 85 3 7   | 22803095.5     | .5         | 37             | 90    |
| 85 10 27 | 22803096.6     | .4         | 56             | 74    |
| 85 10 30 | 22803095.4     | .5         | 54             | 73    |
| 86 4 13  | 22803097.6     | .4         | 83             | 88    |
| 86 10 22 | 22803098.3     | .4         | 65             | 73    |
| 86 11 4  | 22803097.7     | .3         | 93             | 95    |
| 86 12 16 | 22803098.2     | .4         | 58             | 84    |

LENGTH:

Mean = 22803097.2  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope = 1.2  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.76  
VLBI BASELINE LENGTH EVOLUTION  
KASHIMA TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 85 5 15  | 791388824.2    | 1.2        | 78             | 90    |
| 85 7 6   | 791388826.6    | 2.1        |                |       |
| 85 7 20  | 791388815.0    | 1.1        | 123            | 127   |
| 85 7 27  | 791388823.9    | 1.6        | 9              | 9     |
| 85 8 10  | 791388828.2    | 1.1        | 114            | 128   |
| 85 9 30  | 791388822.7    | .9         | 102            | 114   |
| 86 7 5   | 791388817.2    | 1.6        |                |       |
| 86 7 12  | 791388811.8    | 1.1        | 152            | 165   |
| 86 7 26  | 791388818.8    | 1.1        |                |       |
| 86 8 2   | 791388818.3    | .8         | 176            | 190   |
| 86 10 23 | 791388816.7    | 1.2        |                |       |

LENGTH:

Mean = 791388819.8  $\pm$  1.5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 4.7 cm  
 Slope = -5.6  $\pm$  2.2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 3.7 cm

TABLE 4.77  
VLBI BASELINE LENGTH EVOLUTION  
KAUAI TO VNDNBERG(7111)

|    |       | LENGTH      |            | # OBSERVATIONS    |
|----|-------|-------------|------------|-------------------|
|    | DATE  | (cm)        | FORMAL ERR | WEIGHTED    TOTAL |
| 84 | 7 7   | 397252248.1 | 1.1        | 27      146       |
| 84 | 7 21  | 397252243.2 | 1.0        | 65      133       |
| 84 | 7 22  | 397252246.0 | .8         | 92      134       |
| 85 | 5 15  | 397252245.8 | .7         | 67      107       |
| 85 | 7 6   | 397252246.1 | .7         | 127     165       |
| 85 | 7 20  | 397252241.6 | .9         |                   |
| 85 | 7 27  | 397252246.6 | .8         | 111     199       |
| 85 | 8 10  | 397252248.9 | .9         |                   |
| 85 | 9 30  | 397252242.3 | .6         | 105     137       |
| 86 | 7 5   | 397252242.4 | .7         | 206     219       |
| 86 | 7 12  | 397252240.3 | 1.0        |                   |
| 86 | 7 26  | 397252244.3 | .6         | 223     243       |
| 86 | 8 2   | 397252243.5 | .7         |                   |
| 86 | 10 23 | 397252245.3 | .5         | 110     121       |

LENGTH:

Mean = 397252244.5  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.1 cm  
 Slope = -1.0  $\pm$  .7 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.9 cm

TABLE 4.78  
VLBI BASELINE LENGTH EVOLUTION  
KODIAK(7278) TO NOME(7279)

|    |      | LENGTH      |            | # OBSERVATIONS    |
|----|------|-------------|------------|-------------------|
|    | DATE | (cm)        | FORMAL ERR | WEIGHTED    TOTAL |
| 84 | 7 23 | 10240532.5  | 1.4        | 6      232        |
| 85 | 7 18 | 10240531.3  | 1.1        | 6      84         |
| 86 | 7 22 | 102405327.7 | .9         |                   |
| 86 | 7 24 | 102405328.6 | .9         |                   |

LENGTH:

Mean = 102405329.4  $\pm$  1.0 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm  
 Slope = -2.3  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 4.79  
VLBI BASELINE LENGTH EVOLUTION  
KODIAK(7278) TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 23 | 345902218.4    | 1.8        | 5              | 150   |
| 85 7 18 | 345902215.2    | 2.2        | 17             | 71    |
| 86 7 22 | 345902210.8    | 1.2        | 106            | 144   |
| 86 7 24 | 345902208.9    | 1.3        | 79             | 119   |

LENGTH:

Mean = 345902212.1  $\pm$  2.0 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 3.5 cm  
 Slope = -4.3  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.80  
VLBI BASELINE LENGTH EVOLUTION  
KWAJAL26 TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 7  | 729810464.7    | 1.9        | 1              | 23    |
| 84 7 21 | 729810455.1    | 2.0        |                |       |
| 84 7 22 | 729810459.2    | 1.8        | 7              | 116   |
| 85 7 6  | 729810452.7    | 1.9        |                |       |
| 85 7 20 | 729810449.1    | 1.5        |                |       |
| 85 7 27 | 729810462.4    | 1.6        |                |       |
| 85 8 10 | 729810455.2    | 1.3        |                |       |
| 86 7 5  | 729810455.4    | 1.3        |                |       |
| 86 7 12 | 729810448.7    | 2.1        |                |       |
| 86 7 26 | 729810457.5    | 1.8        |                |       |
| 86 8 2  | 729810456.9    | 1.3        |                |       |

LENGTH:

Mean = 729810456.0  $\pm$  1.4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 4.3 cm  
 Slope = -1.8  $\pm$  1.7 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 4.1 cm

TABLE 4.81  
VLBI BASELINE LENGTH EVOLUTION  
MAMMOTH(7259) TO MOJAVE12

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 6 29  | 31578522.1     | 1.1        | 22                         | 66                      |
| 84 4 9   | 31578519.2     | 1.0        | 46                         | 62                      |
| 84 10 22 | 31578519.2     | 1.2        | 60                         | 85                      |
| 86 10 22 | 31578521.8     | .4         | 95                         | 96                      |

LENGTH:

Mean = 31578521.4 + .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = .4 + .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.82  
VLBI BASELINE LENGTH EVOLUTION  
MAMMOTH(7259) TO OVRO 130

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 6 29  | 7425549.6      | 1.0        | 34                         | 66                      |
| 84 4 9   | 7425547.6      | .7         | 48                         | 60                      |
| 84 10 22 | 7425547.0      | 1.2        | 22                         | 43                      |
| 86 10 22 | 7425549.5      | .3         | 50                         | 54                      |

LENGTH:

Mean = 7425549.2 + .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope = .4 + .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 4.83  
VLBI BASELINE LENGTH EVOLUTION  
MAMMOTH(7259) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 84 10 22 | 37399546.2     | 1.2        | 44                         | 75                      |
| 86 10 22 | 37399543.8     | .4         | 87                         | 88                      |

LENGTH:

Mean = 37399544.1 + .8 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm

TABLE 4.84  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO MON PEAK(7274)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 6 27  | 27405588.2     | .5         | 55             | 76    |
| 83 11 5  | 27405586.5     | .5         | 66             | 80    |
| 83 11 8  | 27405585.5     | .5         | 63             | 71    |
| 84 4 12  | 27405584.5     | .4         | 75             | 78    |
| 85 1 12  | 27405581.5     | 1.5        | 50             | 94    |
| 85 3 1   | 27405583.1     | .5         | 71             | 86    |
| 85 5 12  | 27405582.7     | .5         | 95             | 97    |
| 85 5 14  | 27405583.6     | .7         | 88             | 101   |
| 85 11 5  | 27405581.7     | .4         | 91             | 94    |
| 85 12 12 | 27405580.2     | .5         | 81             | 91    |
| 86 1 5   | 27405580.7     | .7         | 85             | 94    |
| 86 2 23  | 27405581.3     | .5         | 68             | 68    |
| 86 4 7   | 27405582.1     | .5         | 48             | 49    |
| 86 5 18  | 27405580.9     | .4         | 89             | 89    |
| 86 5 21  | 27405580.8     | .4         | 81             | 81    |
| 86 10 19 | 27405578.2     | .3         | 87             | 95    |
| 86 10 26 | 27405579.5     | .4         | 96             | 96    |
| 86 10 29 | 27405579.5     | .5         | 97             | 97    |
| 86 12 10 | 27405578.9     | .4         | 96             | 97    |

LENGTH:

Mean = 27405581.8  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.7 cm  
 Slope = -2.4  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.84  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO OCOTILLO(7270)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 3 3  | 29936858.6     | 2.3        | 33             | 47    |
| 85 1 15 | 29936863.3     | .6         | 81             | 100   |
| 85 3 4  | 29936863.2     | .5         | 81             | 86    |

LENGTH:

Mean = 29936863.1  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm

TABLE 4.86  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO PBLOSSOM(7254)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 22  | 13118476.7     | .6         | 69             | 76    |
| 84 2 20  | 13118478.7     | .7         | 58             | 81    |
| 84 10 25 | 13118478.2     | .5         | 75             | 99    |
| 85 3 7   | 13118478.5     | .3         | 73             | 84    |
| 85 10 27 | 13118479.1     | .5         | 87             | 91    |

LENGTH:

Mean = 13118478.4  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = .8  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 4.87  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO PINFLATS(7256)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 10 31 | 19510975.8     | .5         | 70             | 80    |
| 83 11 3  | 19510974.5     | .9         | 51             | 63    |
| 84 10 28 | 19510973.4     | .9         | 86             | 106   |
| 84 10 31 | 19510973.7     | .5         | 77             | 96    |
| 85 1 18  | 19510973.0     | 1.2        | 55             | 59    |
| 85 10 30 | 19510972.6     | .6         | 93             | 97    |
| 85 11 2  | 19510974.1     | .5         | 65             | 77    |
| 86 2 26  | 19510972.8     | .8         | 66             | 71    |
| 86 4 10  | 19510972.8     | .5         | 61             | 68    |
| 86 4 13  | 19510970.9     | .4         | 92             | 92    |
| 86 11 1  | 19510972.8     | .4         | 59             | 68    |
| 86 11 4  | 19510971.1     | .5         | 82             | 90    |
| 86 12 13 | 19510970.8     | .3         | 76             | 96    |
| 86 12 16 | 19510970.4     | .4         | 87             | 91    |

LENGTH:

Mean = 19510972.4  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.6 cm  
 Slope = -1.4  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.88  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO PLATTVIL(7258)

|    |      | LENGTH      |            | # OBSERVATIONS |       |
|----|------|-------------|------------|----------------|-------|
|    | DATE | (cm)        | FORMAL ERR | WEIGHTED       | TOTAL |
| 84 | 4 17 | 119631698.3 | .9         | 81             | 103   |
| 84 | 4 22 | 119631693.5 | 1.1        | 62             | 92    |
| 84 | 4 25 | 119631697.3 | 1.0        | 42             | 63    |
| 84 | 4 26 | 119631693.8 | .7         | 48             | 83    |
| 85 | 5 2  | 119631694.7 | .3         | 96             | 102   |
| 85 | 5 6  | 119631694.8 | .5         | 98             | 106   |
| 85 | 5 7  | 119631694.7 | .6         | 68             | 84    |
| 86 | 3 26 | 119631695.1 | .4         | 54             | 55    |
| 86 | 3 30 | 119631695.9 | .5         | 72             | 77    |
| 86 | 4 1  | 119631696.4 | .4         | 51             | 58    |
| 86 | 4 2  | 119631695.5 | .7         | 8              | 18    |

LENGTH:

Mean = 119631695.3  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = .4  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .9 cm

TABLE 4.89  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO PRESIDIO(7283)

|    |       | LENGTH     |            | # OBSERVATIONS |       |
|----|-------|------------|------------|----------------|-------|
|    | DATE  | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |
| 83 | 8 25  | 56865487.1 | 1.1        | 51             | 71    |
| 83 | 8 27  | 56865485.9 | 1.2        | 21             | 66    |
| 84 | 2 26  | 56865485.6 | 2.7        | 13             | 40    |
| 85 | 3 10  | 56865490.6 | .6         | 18             | 87    |
| 85 | 3 13  | 56865492.5 | .5         | 25             | 82    |
| 85 | 10 19 | 56865492.2 | .3         | 91             | 94    |
| 85 | 10 23 | 56865492.8 | .4         | 83             | 88    |

LENGTH:

Mean = 56865491.9  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.6 cm  
 Slope = 2.5  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.90  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO PT REYES(7251)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 8 27  | 62142470.0     | .8         | 32                         | 62                      |
| 84 2 26  | 62142471.6     | 1.3        | 44                         | 63                      |
| 85 3 13  | 62142476.5     | .4         | 68                         | 85                      |
| 85 10 19 | 62142475.9     | .5         | 89                         | 99                      |

LENGTH:

Mean = 62142475.2  $\pm$  1.3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.2 cm  
 Slope = 2.7  $\pm$  .9 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.1 cm

TABLE 4.91  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO PVERDES(7268)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 11 12 | 22448374.3     | 1.5        | 44                         | 76                      |
| 85 3 4   | 22448380.2     | .5         | 64                         | 88                      |

LENGTH:

Mean = 22448379.6  $\pm$  1.8 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm

TABLE 4.92  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO QUINCY(7221)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 6 27  | 62713776.0     | .8         | 40             | 69    |
| 84 4 12  | 62713775.6     | .9         | 58             | 69    |
| 85 5 12  | 62713775.9     | .4         | 86             | 90    |
| 85 5 14  | 62713776.5     | .6         | 89             | 95    |
| 86 10 19 | 62713776.2     | .5         | 89             | 96    |

LENGTH:

Mean = 62713776.1  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .3 cm  
 Slope = .1  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 4.93  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO SANPAULA(7255)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 8 31 | 21961823.9     | .9         | 63             | 84    |
| 84 2 29 | 21961818.6     | 1.6        | 31             | 43    |
| 85 1 9  | 21961824.7     | .6         | 87             | 96    |

LENGTH:

Mean = 21961823.9  $\pm$  1.2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.7 cm  
 Slope = 1.1  $\pm$  1.8 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.6 cm

TABLE 4.94  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO VERNAL(7290)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 86 3 30 | 84888460.8     | .5         | 59             | 63    |

TABLE 4.95  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO VNDNBERG(7111)

| DATE |       | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|----------------|------------|----------------|-------|
|      |       |                |            | WEIGHTED       | TOTAL |
| 83   | 8 22  | 35128244.3     | 1.0        | 34             | 67    |
| 83   | 8 25  | 35128245.3     | .6         | 38             | 66    |
| 83   | 8 27  | 35128244.3     | .6         | 31             | 72    |
| 83   | 8 31  | 35128243.9     | 1.0        | 46             | 74    |
| 83   | 10 31 | 35128247.0     | .6         | 38             | 69    |
| 83   | 11 3  | 35128243.3     | .7         | 61             | 74    |
| 83   | 11 8  | 35128246.1     | .7         | 48             | 66    |
| 83   | 11 10 | 35128246.5     | .9         | 58             | 73    |
| 83   | 11 12 | 35128243.2     | 1.8        | 15             | 78    |
| 84   | 2 20  | 35128245.5     | .7         | 50             | 72    |
| 84   | 2 23  | 35128243.0     | .7         | 32             | 56    |
| 84   | 2 26  | 35128246.0     | .7         | 40             | 61    |
| 84   | 2 29  | 35128249.0     | 1.3        | 62             | 102   |
| 84   | 3 3   | 35128250.6     | 1.9        | 41             | 92    |
| 84   | 4 12  | 35128244.6     | .5         | 41             | 69    |
| 84   | 7 7   | 35128243.4     | 1.3        | 72             | 129   |
| 84   | 7 21  | 35128243.7     | .8         | 115            | 131   |
| 84   | 7 22  | 35128247.3     | .6         | 120            | 133   |
| 84   | 10 22 | 35128246.0     | .4         | 66             | 98    |
| 84   | 10 25 | 35128245.7     | .4         | 99             | 107   |
| 84   | 10 28 | 35128246.2     | .4         | 103            | 109   |
| 84   | 10 31 | 35128245.5     | .4         | 94             | 102   |
| 85   | 1 9   | 35128246.5     | .6         | 78             | 100   |
| 85   | 1 12  | 35128247.3     | .3         | 74             | 86    |
| 85   | 1 15  | 35128246.8     | .4         | 91             | 98    |
| 85   | 1 18  | 35128245.5     | .4         | 51             | 60    |
| 85   | 3 1   | 35128247.8     | .3         | 70             | 80    |
| 85   | 3 4   | 35128247.3     | .3         | 83             | 86    |
| 85   | 3 7   | 35128246.4     | .3         | 89             | 91    |
| 85   | 3 10  | 35128247.7     | .3         | 70             | 88    |
| 85   | 3 13  | 35128247.6     | .3         | 61             | 81    |
| 85   | 5 12  | 35128247.2     | .3         | 94             | 96    |
| 85   | 5 15  | 35128248.1     | .4         | 98             | 104   |
| 85   | 7 6   | 35128247.0     | .5         | 184            | 196   |
| 85   | 7 20  | 35128251.0     | 1.0        | 118            | 123   |
| 85   | 7 27  | 35128248.3     | .7         | 122            | 165   |
| 85   | 8 10  | 35128249.9     | .8         | 107            | 115   |
| 85   | 9 30  | 35128249.0     | .3         | 125            | 140   |
| 85   | 10 19 | 35128247.6     | .3         | 96             | 98    |
| 85   | 10 23 | 35128248.1     | .4         | 58             | 59    |
| 85   | 10 27 | 35128247.9     | .3         | 68             | 77    |
| 85   | 10 30 | 35128248.1     | .5         | 56             | 67    |
| 85   | 11 2  | 35128249.7     | .2         | 30             | 79    |
| 85   | 11 5  | 35128249.1     | .3         | 97             | 101   |
| 85   | 12 12 | 35128248.4     | .2         | 83             | 92    |

|    |    |    |            |    |     |     |
|----|----|----|------------|----|-----|-----|
| 86 | 4  | 7  | 35128250.2 | .8 | 18  | 28  |
| 86 | 4  | 10 | 35128250.3 | .3 | 84  | 92  |
| 86 | 4  | 13 | 35128249.4 | .4 | 86  | 89  |
| 86 | 5  | 18 | 35128250.2 | .2 | 93  | 95  |
| 86 | 5  | 21 | 35128250.0 | .3 | 98  | 100 |
| 86 | 7  | 5  | 35128249.8 | .4 | 209 | 217 |
| 86 | 7  | 12 | 35128250.6 | .8 | 149 | 161 |
| 86 | 7  | 26 | 35128249.7 | .2 | 217 | 230 |
| 86 | 8  | 2  | 35128250.9 | .6 | 175 | 182 |
| 86 | 10 | 19 | 35128250.0 | .2 | 99  | 99  |
| 86 | 10 | 22 | 35128250.3 | .3 | 90  | 91  |
| 86 | 10 | 23 | 35128250.8 | .3 | 114 | 116 |
| 86 | 10 | 26 | 35128249.8 | .2 | 93  | 98  |
| 86 | 10 | 29 | 35128250.3 | .2 | 98  | 98  |
| 86 | 11 | 1  | 35128250.9 | .2 | 86  | 92  |
| 86 | 11 | 4  | 35128249.6 | .3 | 84  | 93  |
| 86 | 12 | 10 | 35128250.5 | .3 | 72  | 74  |
| 86 | 12 | 13 | 35128251.6 | .2 | 86  | 96  |
| 86 | 12 | 16 | 35128249.6 | .5 | 84  | 87  |

LENGTH:

Mean = 35128248.8  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm  
 Slope = 2.0  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.96  
 VLBI BASELINE LENGTH EVOLUTION  
 MOJAVE12 TO YUMA(7894)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 3  | 36291238.7     | 1.7        | 64             | 85    |
| 83 11 5  | 36291237.1     | .9         | 42             | 62    |
| 84 10 31 | 36291238.8     | 1.1        | 77             | 109   |
| 85 3 1   | 36291238.9     | .4         | 81             | 87    |
| 85 11 2  | 36291238.7     | .7         | 61             | 83    |
| 85 11 5  | 36291239.3     | .5         | 91             | 101   |
| 86 4 10  | 36291239.4     | .5         | 71             | 76    |
| 86 5 21  | 36291239.4     | .3         | 88             | 91    |
| 86 10 29 | 36291239.7     | .2         | 95             | 95    |
| 86 11 1  | 36291239.0     | .3         | 74             | 77    |
| 86 12 10 | 36291240.2     | .4         | 93             | 96    |
| 86 12 13 | 36291240.5     | .4         | 82             | 96    |

LENGTH:

Mean = 36291239.5  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = .6  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 4.97  
VLBI BASELINE LENGTH EVOLUTION  
MON PEAK(7274) TO OVRO 130

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 82 10 16 | 51042382.8     | .5         | 77                         | 97                      |
| 82 10 17 | 51042380.8     | .5         | 87                         | 96                      |
| 83 6 27  | 51042380.6     | .6         | 52                         | 61                      |
| 83 11 5  | 51042378.9     | .5         | 53                         | 74                      |
| 84 4 12  | 51042376.7     | .4         | 68                         | 70                      |
| 85 3 1   | 51042374.4     | .6         | 40                         | 43                      |
| 85 5 12  | 51042374.0     | .5         | 54                         | 56                      |
| 85 5 14  | 51042375.7     | .7         | 53                         | 58                      |
| 86 4 7   | 51042373.1     | .5         | 26                         | 28                      |
| 86 5 18  | 51042372.4     | .4         | 44                         | 47                      |
| 86 5 21  | 51042371.3     | .5         |                            |                         |
| 86 10 19 | 51042370.8     | .4         | 47                         | 53                      |
| 86 10 26 | 51042371.8     | .5         |                            |                         |
| 86 10 29 | 51042371.3     | .6         |                            |                         |

LENGTH:

Mean = 51042375.0  $\pm$  1.1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 3.9 cm  
 Slope = -2.6  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.98  
VLBI BASELINE LENGTH EVOLUTION  
MON PEAK(7274) TO QUINCY(7221)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 6 27  | 88353829.4     | .9         | 5                          | 74                      |
| 84 4 12  | 88353824.2     | 1.0        | 7                          | 60                      |
| 85 5 12  | 88353822.6     | .7         |                            |                         |
| 85 5 14  | 88353823.7     | 1.0        |                            |                         |
| 86 10 19 | 88353817.6     | .6         |                            |                         |

LENGTH:

Mean = 88353822.0  $\pm$  2.0 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 4.0 cm  
 Slope = -3.4  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.99  
VLBI BASELINE LENGTH EVOLUTION  
MON PEAK(7274) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 8  | 43021601.3     | 1.0        | 24             | 67    |
| 84 4 12  | 43021599.1     | .7         | 2              | 69    |
| 85 1 12  | 43021602.3     | 1.1        | 23             | 83    |
| 85 3 1   | 43021602.5     | .4         | 52             | 81    |
| 85 5 12  | 43021602.7     | .5         | 85             | 96    |
| 85 11 5  | 43021602.4     | .4         | 90             | 95    |
| 85 12 12 | 43021604.1     | .4         | 75             | 90    |
| 86 4 7   | 43021602.2     | .9         | 6              | 14    |
| 86 5 18  | 43021603.7     | .3         | 83             | 87    |
| 86 5 21  | 43021602.8     | .4         |                |       |
| 86 10 19 | 43021603.2     | .3         | 91             | 95    |
| 86 10 26 | 43021604.1     | .3         | 86             | 94    |
| 86 10 29 | 43021603.0     | .4         |                |       |
| 86 12 10 | 43021604.8     | .4         | 65             | 73    |

LENGTH:

Mean = 43021603.2  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = 1.0  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.100  
VLBI BASELINE LENGTH EVOLUTION  
MON PEAK(7274) TO YUMA(7894)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 5  | 20772692.7     | .7         | 14             | 57    |
| 85 3 1   | 20772696.9     | .4         | 16             | 87    |
| 85 11 5  | 20772699.6     | .4         |                |       |
| 86 5 21  | 20772699.5     | .4         |                |       |
| 86 10 29 | 20772700.9     | .4         |                |       |
| 86 12 10 | 20772700.8     | .3         | 42             | 89    |

LENGTH:

Mean = 20772699.3  $\pm$  .9 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.1 cm  
 Slope = 2.4  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 4.101  
VLBI BASELINE LENGTH EVOLUTION  
NOME(7279) TO SNDPOINT(7280)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 14 | 106000286.1    | 2.6        |                |       |
| 85 7 25 | 106000286.1    | .9         | 3              | 41    |
| 86 7 31 | 106000287.2    | .8         |                |       |

LENGTH:

Mean = 106000286.7  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = .9  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 4.102  
VLBI BASELINE LENGTH EVOLUTION  
NOME(7279) TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 14 | 438869424.8    | 3.2        | 5              | 43    |
| 84 7 23 | 438869427.5    | 1.2        | 36             | 127   |
| 85 7 18 | 438869419.4    | 1.8        | 6              | 69    |
| 85 7 25 | 438869410.3    | 1.1        | 65             | 165   |
| 86 7 22 | 438869407.3    | 1.9        | 22             | 114   |
| 86 7 24 | 438869409.4    | 1.5        | 22             | 126   |
| 86 7 31 | 438869411.2    | 1.3        | 86             | 169   |

LENGTH:

Mean = 438869415.2  $\pm$  3.1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 7.5 cm  
 Slope = -8.2  $\pm$  1.9 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 3.7 cm

TABLE 4.103  
VLBI BASELINE LENGTH EVOLUTION  
OCOTILLO(7270) TO OVRO 130

| DATE   | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|--------|----------------|------------|----------------|-------|
|        |                |            | WEIGHTED       | TOTAL |
| 85 3 4 | 54231322.9     | .5         | 44             | 47    |

TABLE 4.104  
VLBI BASELINE LENGTH EVOLUTION  
OCOTILLO(7270) TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 3 3  | 48785110.4     | 2.9        | 3              | 41    |
| 85 1 15 | 48785109.9     | .5         | 74             | 97    |
| 85 3 4  | 48785109.8     | .4         | 80             | 82    |

LENGTH:

Mean = 48785109.8 + .1 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .1 cm

TABLE 4.105  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO PBLOSSOM(7254)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 2 21  | 30349782.5     | .9         | 36             | 52    |
| 83 8 22  | 30349781.1     | 1.0        | 57             | 61    |
| 84 2 20  | 30349784.1     | .9         | 48             | 70    |
| 84 10 25 | 30349781.0     | .7         | 33             | 49    |
| 85 3 7   | 30349780.3     | .3         | 28             | 44    |
| 85 10 27 | 30349780.4     | .6         | 46             | 51    |

LENGTH:

Mean = 30349780.8 + .5 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 1.0 cm  
Slope = -1.0 + .5 cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .7 cm

TABLE 4.106  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO PINFLATS(7256)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 10 31 | 43464937.9     | .6         | 62             | 67    |
| 84 10 28 | 43464934.8     | .9         | 47             | 56    |
| 85 10 30 | 43464933.7     | .7         | 53             | 56    |
| 86 4 10  | 43464934.4     | .5         | 37             | 40    |
| 86 4 13  | 43464931.3     | .4         | 49             | 50    |
| 86 11 1  | 43464934.6     | .5         | 32             | 39    |
| 86 11 4  | 43464931.8     | .5         | 32             | 45    |

LENGTH:

Mean = 43464933.6  $\pm$  .8 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.0 cm  
 Slope = -1.5  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.4 cm

TABLE 4.107  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO PLATTVIL(7258)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 83 6 6  | 122081878.7    | 2.3        | 9              | 20    |
| 83 6 7  | 122081874.4    | 1.5        | 36             | 66    |
| 84 4 26 | 122081873.1    | .7         | 60             | 82    |
| 85 5 7  | 122081875.4    | .5         | 82             | 87    |
| 86 4 1  | 122081877.7    | .4         | 66             | 71    |
| 86 4 2  | 122081876.1    | .6         | 13             | 19    |

LENGTH:

Mean = 122081876.2  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.6 cm  
 Slope = 1.6  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 4.108  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO PRESIDIO(7283)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 25  | 37425830.9     | .8         | 52             | 64    |
| 83 8 27  | 37425829.5     | 1.0        | 64             | 78    |
| 84 2 26  | 37425824.4     | 2.3        |                |       |
| 85 3 10  | 37425832.4     | .7         |                |       |
| 85 3 13  | 37425834.9     | .5         | 26             | 42    |
| 85 10 19 | 37425834.4     | .3         | 49             | 51    |
| 85 10 23 | 37425836.0     | .3         | 39             | 45    |

LENGTH:

Mean = 37425834.3  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.7 cm  
 Slope = 2.3  $\pm$  .7 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 4.109  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO PT REYES(7251)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 27  | 42176673.5     | .6         | 63             | 74    |
| 84 2 26  | 42176672.7     | 1.4        | 5              | 56    |
| 85 3 13  | 42176679.2     | .4         | 31             | 48    |
| 85 10 19 | 42176678.2     | .4         |                |       |

LENGTH:

Mean = 42176677.3  $\pm$  1.4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.4 cm  
 Slope = 2.5  $\pm$  .8 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.2 cm

TABLE 4.110  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO PVERDES(7268)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 11 12 | 38709461.5     | 1.8        | 53                         | 70                      |
| 85 3 4   | 38709461.1     | .6         | 36                         | 48                      |

LENGTH:

Mean = 38709461.1  $\pm$  .1 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .1 cm

TABLE 4.111  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO QUINCY(7221)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 82 10 21 | 38269631.4     | 1.9        | 46                         | 67                      |
| 82 10 23 | 38269635.8     | .6         | 72                         | 96                      |
| 83 6 27  | 38269633.6     | .8         | 43                         | 54                      |
| 84 4 12  | 38269633.7     | .8         | 44                         | 55                      |
| 85 5 12  | 38269633.8     | .4         | 48                         | 51                      |
| 85 5 14  | 38269633.9     | .6         | 53                         | 55                      |
| 86 10 19 | 38269633.1     | .4         | 47                         | 50                      |

LENGTH:

Mean = 38269633.8  $\pm$  .4 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .9 cm  
Slope = -.5  $\pm$  .2 cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .6 cm

TABLE 4.112  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO SANPAULA(7255)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 83 8 31 | 32208016.7     | 1.1        | 59                         | 69                      |

TABLE 4.113  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 22  | 36398034.6     | 1.0        | 24             | 47    |
| 83 8 25  | 36398033.3     | .6         | 51             | 59    |
| 83 8 27  | 36398032.6     | .6         | 73             | 83    |
| 83 8 31  | 36398031.1     | 1.0        | 39             | 63    |
| 83 10 31 | 36398035.8     | .6         | 37             | 59    |
| 83 11 12 | 36398030.0     | 3.3        | 13             | 70    |
| 84 2 20  | 36398033.4     | .8         | 34             | 60    |
| 84 2 23  | 36398034.3     | 1.4        | 9              | 55    |
| 84 2 26  | 36398036.3     | 2.0        | 7              | 57    |
| 84 4 12  | 36398034.3     | .6         | 41             | 63    |
| 84 10 22 | 36398032.1     | .5         | 29             | 47    |
| 84 10 25 | 36398030.9     | .5         | 50             | 54    |
| 84 10 28 | 36398032.8     | .5         | 53             | 59    |
| 85 3 1   | 36398032.7     | .5         | 34             | 40    |
| 85 3 4   | 36398033.0     | .4         | 45             | 49    |
| 85 3 7   | 36398030.7     | .4         | 34             | 48    |
| 85 3 10  | 36398033.3     | .5         | 39             | 43    |
| 85 3 13  | 36398031.1     | .4         | 39             | 42    |
| 85 5 12  | 36398031.0     | .4         | 50             | 53    |
| 85 10 19 | 36398029.8     | .4         | 50             | 52    |
| 85 10 23 | 36398030.8     | .6         | 27             | 29    |
| 85 10 27 | 36398030.7     | .4         | 37             | 43    |
| 85 10 30 | 36398032.8     | .6         | 31             | 40    |
| 86 4 7   | 36398033.6     | 1.2        | 8              | 16    |
| 86 4 10  | 36398031.6     | .5         | 47             | 50    |
| 86 4 13  | 36398029.8     | .5         | 46             | 49    |
| 86 5 18  | 36398031.0     | .3         | 45             | 48    |
| 86 5 21  | 36398031.2     | .4         | 46             | 47    |
| 86 10 19 | 36398030.4     | .3         | 51             | 53    |
| 86 10 22 | 36398031.9     | .4         | 46             | 51    |
| 86 10 26 | 36398030.6     | .4         | 48             | 49    |
| 86 10 29 | 36398031.2     | .3         | 43             | 50    |
| 86 11 1  | 36398032.0     | .3         | 47             | 51    |
| 86 11 4  | 36398030.1     | .3         | 45             | 46    |

LENGTH:

Mean = 36398031.5  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope = -.8  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 4.114  
VLBI BASELINE LENGTH EVOLUTION  
OVRO 130 TO YUMA(7894)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 5  | 60398936.0     | 1.0        | 42             | 59    |
| 85 3 1   | 60398937.2     | .5         | 38             | 42    |
| 86 4 10  | 60398938.3     | .6         |                |       |
| 86 5 21  | 60398937.7     | .4         | 40             | 40    |
| 86 10 29 | 60398939.1     | .3         | 45             | 49    |
| 86 11 1  | 60398938.2     | .4         | 40             | 42    |

LENGTH:

Mean = 60398938.2  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope = .9  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 4.115  
VLBI BASELINE LENGTH EVOLUTION  
PBLOSSOM(7254) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 22  | 24736248.0     | .9         |                |       |
| 84 2 20  | 24736250.5     | .8         | 21             | 70    |
| 84 10 25 | 24736250.0     | .5         | 69             | 101   |
| 85 3 7   | 24736249.8     | .3         | 76             | 83    |
| 85 10 27 | 24736251.3     | .4         | 55             | 69    |

LENGTH:

Mean = 24736250.1  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope = 1.1  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 4.116  
VLBI BASELINE LENGTH EVOLUTION  
PINFLATS(7256) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 10 31 | 39778137.4     | .7         | 19             | 71    |
| 83 11 3  | 39778137.0     | 1.0        | 21             | 49    |
| 84 10 28 | 39778137.0     | .6         | 72             | 106   |
| 84 10 31 | 39778136.4     | .4         | 56             | 87    |
| 85 1 18  | 39778136.9     | 1.0        | 85             | 108   |
| 85 10 30 | 39778138.3     | .6         | 59             | 73    |
| 85 11 2  | 39778139.9     | .4         | 39             | 89    |
| 86 4 10  | 39778141.3     | .4         | 64             | 69    |
| 86 4 13  | 39778139.9     | .4         | 73             | 91    |
| 86 11 1  | 39778142.0     | .4         | 61             | 69    |
| 86 11 4  | 39778140.9     | .4         | 70             | 89    |
| 86 12 13 | 39778142.0     | .3         | 64             | 97    |
| 86 12 16 | 39778140.7     | .5         | 80             | 95    |

LENGTH:

Mean = 39778140.2  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.9 cm  
 Slope = 2.0  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.117  
VLBI BASELINE LENGTH EVOLUTION  
PINFLATS(7256) TO YUMA(7894)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 3  | 22291045.0     | 1.5        | 12             | 63    |
| 84 10 31 | 22291047.3     | 1.0        | 9              | 96    |
| 85 11 2  | 22291048.4     | .6         |                |       |
| 86 4 10  | 22291049.5     | .5         |                |       |
| 86 11 1  | 22291050.1     | .4         | 16             | 25    |
| 86 12 13 | 22291052.2     | .3         |                |       |

LENGTH:

Mean = 22291050.4  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.7 cm  
 Slope = 2.3  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 4.118  
VLBI BASELINE LENGTH EVOLUTION  
PLATTVIL(7258) TO VERNAL(7290)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 86 3 30 | 41242520.0     | .5         | 35             | 56    |

TABLE 4.119  
VLBI BASELINE LENGTH EVOLUTION  
PLATTVIL(7258) TO WESTFORD

| DATE   | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|--------|----------------|------------|----------------|-------|
|        |                |            | WEIGHTED       | TOTAL |
| 83 6 6 | 275286267.6    | 3.4        | 4              | 20    |
| 83 6 9 | 275286268.2    | 2.1        | 23             | 90    |
| 85 5 7 | 275286264.6    | .8         | 47             | 73    |
| 86 4 1 | 275286268.6    | .7         | 75             | 79    |

LENGTH:

Mean = 275286267.0  $\pm$  1.1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.9 cm  
 Slope = .9  $\pm$  1.3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.8 cm

TABLE 4.120  
VLBI BASELINE LENGTH EVOLUTION  
PRESIDIO(7283) TO PT REYES(7251)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 27  | 5372724.3      | 1.1        | 12             | 72    |
| 84 2 26  | 5372724.7      | 3.5        |                |       |
| 85 3 13  | 5372723.3      | .6         | 2              | 31    |
| 85 10 19 | 5372723.3      | .5         |                |       |

LENGTH:

Mean = 5372723.4  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .4 cm  
 Slope = -.5  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 4.121  
VLBI BASELINE LENGTH EVOLUTION  
PRESIDIO(7283) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 25  | 39658010.1     | 1.2        | 18             | 72    |
| 83 8 27  | 39658008.9     | 1.2        | 10             | 79    |
| 84 2 26  | 39658015.0     | 4.3        |                |       |
| 85 3 10  | 39658012.8     | 1.1        |                |       |
| 85 3 13  | 39658011.6     | .7         | 19             | 84    |
| 85 10 19 | 39658009.1     | .4         | 89             | 94    |
| 85 10 23 | 39658009.8     | .6         | 26             | 49    |

LENGTH:

Mean = 39658010.0  $\pm$  .5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope = -.5  $\pm$  .7 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.2 cm

TABLE 4.122  
VLBI BASELINE LENGTH EVOLUTION  
PT REYES(7251) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 8 27  | 44523336.6     | .7         | 26             | 72    |
| 84 2 26  | 44523339.1     | 1.5        | 18             | 57    |
| 85 3 13  | 44523338.5     | .6         | 50             | 84    |
| 85 10 19 | 44523336.1     | .6         |                |       |

LENGTH:

Mean = 44523337.3  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.1 cm  
 Slope = -.1  $\pm$  .8 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.1 cm

TABLE 4.123  
VLBI BASELINE LENGTH EVOLUTION  
PVERDES(7268) TO VNDNBERG(7111)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|----------------|------------|----------------------------|-------------------------|
| 83 11 12 | 22306517.9     | 2.2        | 3                          | 70                      |
| 85 3 4   | 22306512.7     | .5         | 50                         | 84                      |

LENGTH:

Mean = 22306512.9  $\pm$  1.1 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 1.1 cm

TABLE 4.124  
VLBI BASELINE LENGTH EVOLUTION  
SANPAULA(7255) TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 83 8 31 | 14977647.3     | 1.0        | 13                         | 74                      |
| 84 2 29 | 14977656.0     | 1.7        |                            |                         |
| 85 1 9  | 14977647.6     | .5         | 45                         | 82                      |

LENGTH:

Mean = 14977648.1  $\pm$  1.5 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 2.2 cm  
Slope =  $-.9 \pm 2.7$  cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = 2.1 cm

TABLE 4.125  
VLBI BASELINE LENGTH EVOLUTION  
SNDPOINT(7280) TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|----------------|------------|----------------------------|-------------------------|
| 84 7 14 | 376366416.7    | 4.3        |                            |                         |
| 85 7 25 | 376366404.3    | 1.4        | 108                        | 157                     |
| 86 7 31 | 376366402.2    | 1.2        | 66                         | 162                     |

LENGTH:

Mean = 376366403.6  $\pm$  2.0 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 2.9 cm  
Slope =  $-4.0 \pm 2.0$  cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = 1.7 cm

TABLE 4.126  
VLBI BASELINE LENGTH EVOLUTION  
SOURDOGH(7281) TO VNDNBERG(7111)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 31 | 352701703.6    | 1.9        | 27             | 123   |
| 84 8 7  | 352701715.9    | 1.8        | 54             | 136   |
| 85 8 5  | 352701702.6    | 1.2        | 124            | 174   |
| 85 8 12 | 352701704.3    | 1.3        | 97             | 146   |
| 86 8 11 | 352701699.3    | 1.3        | 61             | 111   |
| 86 8 13 | 352701700.2    | 1.2        | 86             | 134   |
| 86 8 18 | 352701699.6    | 1.1        | 83             | 140   |
| 86 8 20 | 352701698.7    | 1.1        | 70             | 131   |

LENGTH:

Mean = 352701701.8  $\pm$  1.6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 4.2 cm  
 Slope = -4.9  $\pm$  1.2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 2.3 cm

TABLE 4.127  
VLBI BASELINE LENGTH EVOLUTION  
SOURDOGH(7281) TO WHTHORSE(7284)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 7  | 59131658.2     | 1.6        | 7              | 217   |
| 86 8 18 | 59131658.1     | .5         |                |       |
| 86 8 20 | 59131657.9     | .5         |                |       |

LENGTH:

Mean = 59131658.0  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .1 cm

TABLE 4.128  
VLBI BASELINE LENGTH EVOLUTION  
SOURDOGH(7281) TO YAKATAGA(7277)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 31 | 32929926.5     | .7         | 29             | 225   |
| 85 8 5  | 32929923.8     | .5         | 39             | 189   |
| 86 8 11 | 32929920.9     | .6         |                |       |
| 86 8 13 | 32929918.8     | .7         |                |       |

**LENGTH:**

Mean = 32929922.6  $\pm$  1.5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.6 cm  
 Slope = -3.2  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 4.129  
VLBI BASELINE LENGTH EVOLUTION  
VNDNBERG(7111) TO WHTHORSE(7284)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 8 7  | 305839573.5    | 3.3        | 3              | 120   |
| 86 8 18 | 305839560.1    | 1.1        | 83             | 137   |
| 86 8 20 | 305839563.1    | 1.1        | 66             | 124   |

**LENGTH:**

Mean = 305839562.2  $\pm$  2.1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 3.0 cm

TABLE 4.130  
VLBI BASELINE LENGTH EVOLUTION  
VNDNBERG(7111) TO YAKATAGA(7277)

| DATE    | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|----------------|------------|----------------|-------|
|         |                |            | WEIGHTED       | TOTAL |
| 84 7 31 | 321477218.7    | 1.4        | 12             | 120   |
| 85 8 5  | 321477218.2    | 1.2        | 97             | 173   |
| 86 8 11 | 321477218.4    | 1.2        | 62             | 113   |
| 86 8 13 | 321477215.7    | 1.3        | 67             | 113   |

LENGTH:

Mean = 321477217.7  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope = -.8  $\pm$  .7 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 4.131  
VLBI BASELINE LENGTH EVOLUTION  
VNDNBERG(7111) TO YUMA(7894)

| DATE     | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|----------------|------------|----------------|-------|
|          |                |            | WEIGHTED       | TOTAL |
| 83 11 3  | 62034171.1     | 1.6        | 15             | 74    |
| 84 10 31 | 62034173.3     | 1.0        | 23             | 102   |
| 85 3 1   | 62034175.7     | .4         | 76             | 82    |
| 85 11 2  | 62034177.7     | .6         | 33             | 92    |
| 85 11 5  | 62034178.7     | .4         | 81             | 101   |
| 86 4 10  | 62034179.6     | .5         | 68             | 77    |
| 86 5 21  | 62034179.5     | .4         | 96             | 97    |
| 86 10 29 | 62034181.2     | .3         | 92             | 92    |
| 86 11 1  | 62034181.6     | .3         | 73             | 78    |
| 86 12 10 | 62034183.0     | .5         | 60             | 71    |
| 86 12 13 | 62034183.8     | .3         | 76             | 97    |

LENGTH:

Mean = 62034180.3  $\pm$  .8 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.6 cm  
 Slope = 3.9  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 5.1  
VLBI BASELINE TRANSVERSE EVOLUTION  
BLKBUTTE(7269) TO HRAS 085

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|----------|--------------------|------------|----------------|----------|-------|
| 86 5 18  | 2.4                | .3         | 70             |          | 72    |
| 86 10 26 | 1.1                | .3         |                |          |       |

**TRANSVERSE:**

Mean =  $1.8 \pm .7$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .7 cm

TABLE 5.2  
VLBI BASELINE TRANSVERSE EVOLUTION  
BLKBUTTE(7269) TO MOJAVE12

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|----------|--------------------|------------|----------------|----------|-------|
| 84 3 3   | 5.3                | .6         | 90             |          | 92    |
| 85 1 12  | 6.4                | .7         | 79             |          | 96    |
| 85 1 15  | 7.3                | .6         | 82             |          | 93    |
| 86 5 18  | 7.5                | .3         | 83             |          | 84    |
| 86 10 26 | 7.5                | .2         | 100            |          | 100   |

**TRANSVERSE:**

Mean =  $7.3 \pm .3$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .5 cm  
Slope =  $.6 \pm .2$  cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .3 cm

TABLE 5.3  
VLBI BASELINE TRANSVERSE EVOLUTION  
BLKBUTTE(7269) TO MON PEAK(7274)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 85 1 12  | 323.8              | 1.3        | 8              | 55    |
| 86 5 18  | 327.4              | .3         |                |       |
| 86 10 26 | 328.5              | .4         |                |       |

TRANSVERSE:

Mean =  $327.8 \pm .6$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .9 cm  
 Slope =  $2.6 \pm .1$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .1 cm

TABLE 5.4  
VLBI BASELINE TRANSVERSE EVOLUTION  
BLKBUTTE(7269) TO OCOTILLO(7270)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 3 3  | -9.8               | 1.5        | 11             | 41    |
| 85 1 15 | -11.6              | .6         | 16             | 91    |

TRANSVERSE:

Mean =  $-11.3 \pm .6$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm

TABLE 5.5  
VLBI BASELINE TRANSVERSE EVOLUTION  
BLKBUTTE(7269) TO OVRO 130

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 86 5 18  | 6.8                | .3         | 37             | 40    |
| 86 10 26 | 7.7                | .2         | 49             | 51    |

TRANSVERSE:

Mean =  $7.3 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm

**TABLE 5.6**  
**VLBI BASELINE TRANSVERSE EVOLUTION**  
**BLKBUTTE(7269) TO VNDNBERG(7111)**

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 3 3   | 6.3                | 2.2        | 2              | 84    |
| 85 1 12  | 8.9                | 1.0        | 48             | 83    |
| 85 1 15  | 10.4               | .8         | 71             | 91    |
| 86 5 18  | 13.5               | .4         | 79             | 83    |
| 86 10 26 | 15.6               | .4         | 94             | 97    |

**TRANSVERSE:**

Mean =  $13.8 \pm 1.0$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.1 cm  
 Slope =  $3.2 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

**TABLE 5.7**  
**VLBI BASELINE TRANSVERSE EVOLUTION**  
**DEADMANL(7267) TO MOJAVE12**

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 2 29 | -142.4             | 2.5        | 65             | 79    |
| 85 1 9  | -140.6             | 1.5        | 42             | 94    |

**TRANSVERSE:**

Mean =  $-141.1 \pm .8$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm

TABLE 5.8  
VLBI BASELINE TRANSVERSE EVOLUTION  
DEADMANL(7267) TO SANPAULA(7255)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------|----------|-------|
| 84 2 29 | 123.2              | 3.5        |                |          |       |
| 85 1 9  | 122.9              | 2.0        | 3              |          | 78    |

TRANSVERSE:

Mean =  $122.9 \pm .1$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .1 cm

TABLE 5.9  
VLBI BASELINE TRANSVERSE EVOLUTION  
DEADMANL(7267) TO VNDNBERG(7111)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------|----------|-------|
| 84 2 29 | 118.0              | 3.3        |                | 7        | 81    |
| 85 1 9  | 120.1              | 2.0        | 16             |          | 81    |

TRANSVERSE:

Mean =  $119.6 \pm .9$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .9 cm

TABLE 5.10  
VLBI BASELINE TRANSVERSE EVOLUTION  
ELY(7286) TO HATCREEK

| DATE   | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|--------|--------------------|------------|----------------|----------|-------|
| 85 5 6 | -.1                | .5         |                | 57       | 63    |
| 86 4 2 | 2.3                | .4         | 54             |          | 57    |

TRANSVERSE:

Mean =  $1.2 \pm 1.2$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 1.2 cm

TABLE 5.11  
VLBI BASELINE TRANSVERSE EVOLUTION  
ELY(7286) TO HRAS 085

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 4 22 | 2.9                | .6         | 57             | 78    |
| 85 5 6  | 3.2                | .4         | 73             | 77    |
| 86 4 2  | 3.4                | .4         | 56             | 63    |

TRANSVERSE:

Mean =  $3.2 \pm .1$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .2 cm  
 Slope =  $.2 \pm .0$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .0 cm

TABLE 5.12  
VLBI BASELINE TRANSVERSE EVOLUTION  
ELY(7286) TO MOJAVE12

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 4 22 | 3.7                | .6         | 69             | 76    |
| 85 5 6  | 4.1                | .3         | 74             | 76    |
| 86 4 2  | 4.9                | .3         | 48             | 57    |

TRANSVERSE:

Mean =  $4.5 \pm .3$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm  
 Slope =  $.7 \pm .1$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .1 cm

TABLE 5.13  
VLBI BASELINE TRANSVERSE EVOLUTION  
ELY(7286) TO OVRO 130

| DATE   | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|--------|--------------------|------------|----------------|-------|
|        |                    |            | WEIGHTED       | TOTAL |
| 86 4 2 | 4.2                | .3         | 44             | 54    |

TABLE 5.14  
VLBI BASELINE TRANSVERSE EVOLUTION  
FLAGSTAF(7261) TO HATCREEK

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 4 17 | 5.0                | 1.0        | 30             | 59    |
| 85 5 2  | 3.4                | .4         | 89             | 94    |
| 86 3 26 | 4.4                | .4         | 53             | 59    |

TRANSVERSE:

Mean =  $4.0 \pm .4$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope =  $.3 \pm .7$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.15  
VLBI BASELINE TRANSVERSE EVOLUTION  
FLAGSTAF(7261) TO HRAS 085

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 4 17 | -2.1               | 1.0        | 19             | 62    |
| 85 5 2  | -3.4               | .4         | 90             | 97    |
| 86 3 26 | -3.5               | .4         | 60             | 60    |

TRANSVERSE:

Mean =  $-3.3 \pm .2$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .3 cm  
 Slope =  $-.4 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 5.16  
VLBI BASELINE TRANSVERSE EVOLUTION  
FLAGSTAF(7261) TO MOJAVE12

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 4 17 | 4.7                | 1.2        | 34             | 65    |
| 85 5 2  | 5.4                | .5         | 86             | 92    |
| 86 3 26 | 5.6                | .4         | 45             | 47    |

**TRANSVERSE:**

Mean =  $5.5 \pm .2$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .2 cm  
 Slope =  $.3 \pm .1$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .1 cm

TABLE 5.17  
VLBI BASELINE TRANSVERSE EVOLUTION  
FORT ORD(7266) TO HATCREEK

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 23  | -71.7              | .7         | 34             | 42    |
| 85 3 10  | -69.7              | .3         | 42             | 47    |
| 85 10 23 | -66.7              | .4         | 59             | 66    |

**TRANSVERSE:**

Mean =  $-69.2 \pm 1.1$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.5 cm  
 Slope =  $3.2 \pm .8$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 5.18  
VLBI BASELINE TRANSVERSE EVOLUTION  
FORT ORD(7266) TO MOJAVE12

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 23  | -218.6             | .9         | 40             | 49    |
| 85 3 10  | -216.0             | .4         | 59             | 75    |
| 85 10 23 | -212.9             | .6         | 92             | 99    |

TRANSVERSE:

Mean = -215.4  $\pm$  1.2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm  
 Slope = 3.5  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 5.19  
VLBI BASELINE TRANSVERSE EVOLUTION  
FORT ORD(7266) TO OVRO 130

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 23  | -256.7             | 1.5        |                |       |
| 85 3 10  | -250.6             | .5         | 36             | 38    |
| 85 10 23 | -244.9             | .7         |                |       |

TRANSVERSE:

Mean = -249.1  $\pm$  2.3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 3.3 cm  
 Slope = 7.6  $\pm$  1.0 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.20  
VLBI BASELINE TRANSVERSE EVOLUTION  
FORT ORD(7266) TO VNDNBERG(7111)

| DATE     | TRANSVERSE |            | # OBSERVATIONS |       |
|----------|------------|------------|----------------|-------|
|          | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |
| 84 2 23  | -46.9      | .9         | 6              | 33    |
| 85 3 10  | -44.3      | .4         | 64             | 73    |
| 85 10 23 | -44.0      | .6         |                |       |

TRANSVERSE:

Mean = -44.5  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .9 cm  
 Slope = 1.7  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 5.21  
VLBI BASELINE TRANSVERSE EVOLUTION  
GILCREEK TO KODIAK(7278)

| DATE    | TRANSVERSE |            | # OBSERVATIONS |       |
|---------|------------|------------|----------------|-------|
|         | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |
| 84 7 23 | 5.0        | 1.1        | 108            | 256   |
| 85 7 18 | 8.8        | .5         | 136            | 143   |
| 86 7 22 | 10.7       | .4         | 144            | 147   |
| 86 7 24 | 10.2       | .4         | 122            | 124   |

TRANSVERSE:

Mean = 9.8  $\pm$  .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.3 cm  
 Slope = 2.1  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 5.22  
VLBI BASELINE TRANSVERSE EVOLUTION  
GILCREEK TO NOME(7279)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 7 14 | -262.0             | .4         | 225            | 254   |
| 84 7 23 | -259.8             | .4         | 211            | 228   |
| 85 7 18 | -259.8             | .8         | 145            | 160   |
| 85 7 25 | -259.6             | .6         | 126            | 176   |
| 86 7 22 | -261.9             | .6         | 95             | 116   |
| 86 7 24 | -259.9             | .5         | 110            | 128   |
| 86 7 31 | -260.1             | .4         | 166            | 172   |

**TRANSVERSE:**

Mean = -260.6  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = .3  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 5.23  
VLBI BASELINE TRANSVERSE EVOLUTION  
GILCREEK TO SNDPOINT(7280)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 7 14 | 11.4               | 2.6        | 49             | 88    |
| 85 7 25 | 15.9               | .5         | 143            | 161   |
| 86 7 31 | 14.2               | .4         | 157            | 165   |

**TRANSVERSE:**

Mean = 14.9  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .9 cm  
 Slope = -1.2  $\pm$  .9 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 5.24  
VLBI BASELINE TRANSVERSE EVOLUTION  
GILCREEK TO SOURDOUGH(7281)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 7 31 | 25.7               | .2         | 200            | 222   |
| 84 8 7  | 26.1               | .8         | 233            | 261   |
| 85 8 5  | 26.3               | .3         | 175            | 191   |
| 85 8 12 | 26.5               | .2         | 166            | 186   |
| 86 8 11 | 25.8               | .3         | 134            | 145   |
| 86 8 13 | 26.6               | .3         | 130            | 137   |
| 86 8 18 | 25.9               | .3         | 146            | 147   |
| 86 8 20 | 26.3               | .2         | 133            | 140   |

**TRANSVERSE:**

Mean =  $26.2 \pm .1$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .3 cm  
 Slope =  $.1 \pm .1$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 5.25  
VLBI BASELINE TRANSVERSE EVOLUTION  
GILCREEK TO WHTHORSE(7284)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 8 7  | 5.1                | 1.3        | 94             | 227   |
| 86 8 18 | 3.6                | .4         | 138            | 140   |
| 86 8 20 | 3.5                | .3         | 116            | 126   |

**TRANSVERSE:**

Mean =  $3.6 \pm .2$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .3 cm

TABLE 5.26  
VLBI BASELINE TRANSVERSE EVOLUTION  
GILCREEK TO YAKATAGA(7277)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 7 31 | 19.3               | .6         | 153            | 211   |
| 85 8 5  | 18.8               | .3         | 185            | 193   |
| 86 8 11 | 19.3               | .3         | 143            | 148   |
| 86 8 13 | 20.3               | .4         | 104            | 117   |

TRANSVERSE:

Mean =  $19.3 \pm .3$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .5 cm  
 Slope =  $.3 \pm .4$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 5.27  
VLBI BASELINE TRANSVERSE EVOLUTION  
HATCREEK TO MOJAVE12

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 23  | .5                 | .4         | 63             | 71    |
| 84 2 24  | 2.9                | .9         | 105            | 111   |
| 84 2 26  | .3                 | .6         | 40             | 55    |
| 84 4 12  | .2                 | .2         | 68             | 73    |
| 84 4 17  | 1.4                | .4         | 92             | 100   |
| 84 4 25  | .4                 | .3         | 70             | 75    |
| 84 4 26  | -.0                | .4         | 68             | 89    |
| 85 3 1   | -.5                | .5         | 17             | 20    |
| 85 3 10  | -1.8               | .3         | 49             | 54    |
| 85 5 2   | -.5                | .2         | 89             | 100   |
| 85 5 6   | .2                 | .2         | 80             | 91    |
| 85 5 7   | 1.2                | .4         | 77             | 89    |
| 85 5 12  | 1.5                | .2         | 62             | 65    |
| 85 5 15  | .5                 | .3         | 103            | 114   |
| 85 9 30  | 1.1                | .3         | 93             | 118   |
| 85 10 19 | .4                 | .3         | 64             | 65    |
| 85 10 23 | .7                 | .3         | 59             | 68    |
| 85 12 12 | .3                 | .2         | 52             | 58    |
| 86 3 26  | .1                 | .3         | 40             | 43    |
| 86 3 30  | 1.5                | .4         | 51             | 56    |
| 86 4 1   | .2                 | .4         | 50             | 56    |
| 86 4 2   | .9                 | .3         | 46             | 51    |

|          |      |    |    |    |
|----------|------|----|----|----|
| 86 4 7   | -.3  | .2 | 55 | 57 |
| 86 4 8   | .7   | .5 |    |    |
| 86 5 21  | -.6  | .2 | 47 | 55 |
| 86 10 19 | -1.0 | .5 | 37 | 64 |
| 86 10 23 | .6   | .4 |    |    |
| 86 10 29 | .5   | .5 | 41 | 62 |
| 86 10 31 | .3   | .4 |    |    |
| 86 12 10 | 1.1  | .4 | 56 | 57 |

TRANSVERSE:

Mean =  $.3 \pm .1$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean =  $.8$  cm  
 Slope =  $-.0 \pm .2$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line =  $.8$  cm

TABLE 5.28  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 HATCREEK TO MON PEAK(7274)

| DATE     | TRANSVERSE |            | # OBSERVATIONS |       |
|----------|------------|------------|----------------|-------|
|          | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |
| 84 4 12  | -311.9     | .3         | 65             | 69    |
| 85 3 1   | -311.1     | .5         | 18             | 20    |
| 85 5 12  | -308.5     | .5         |                |       |
| 85 12 12 | -311.2     | .4         | 48             | 55    |
| 86 4 7   | -308.1     | .4         | 40             | 42    |
| 86 5 21  | -308.8     | .3         | 45             | 46    |
| 86 10 19 | -309.7     | .5         |                |       |
| 86 10 29 | -307.3     | .5         | 44             | 59    |
| 86 12 10 | -307.6     | .4         | 57             | 58    |

TRANSVERSE:

Mean =  $-309.5 \pm .6$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean =  $1.7$  cm  
 Slope =  $1.4 \pm .4$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line =  $1.0$  cm

TABLE 5.29  
VLBI BASELINE TRANSVERSE EVOLUTION  
HATCREEK TO OVRO 130

| DATE     | TRANSVERSE |      | FORMAL ERR | # OBSERVATIONS |       |
|----------|------------|------|------------|----------------|-------|
|          | (cm)       |      |            | WEIGHTED       | TOTAL |
| 84 2 23  |            | -1.2 | 1.0        | 32             | 68    |
| 84 2 26  |            | -.9  | 1.7        | 21             | 51    |
| 84 4 12  |            | .6   | .2         | 70             | 75    |
| 84 4 26  |            | -.1  | .4         | 69             | 90    |
| 85 3 1   |            | .7   | .6         | 11             | 11    |
| 85 3 10  |            | -1.7 | .4         | 28             | 29    |
| 85 5 7   |            | 2.0  | .4         |                |       |
| 85 5 12  |            | 1.7  | .3         | 40             | 44    |
| 85 10 19 |            | .8   | .3         | 38             | 42    |
| 85 10 23 |            | 1.3  | .4         | 33             | 42    |
| 86 4 1   |            | 2.0  | .4         |                |       |
| 86 4 2   |            | 2.0  | .3         | 39             | 50    |
| 86 4 7   |            | .6   | .3         | 33             | 34    |
| 86 5 21  |            | .6   | .3         | 25             | 28    |
| 86 10 19 |            | -.2  | .5         | 25             | 40    |
| 86 10 29 |            | .9   | .5         | 25             | 37    |
| 86 10 31 |            | .2   | .5         | 35             | 59    |

TRANSVERSE:

Mean = .8 + .2 cm (scaled 1 sigma)

Weighted RMS scatter about the mean = .9 cm

Slope = .3 + .2 cm/yr (scaled 1 sigma)

Weighted RMS scatter about the line = .9 cm

TABLE 5.30  
VLBI BASELINE TRANSVERSE EVOLUTION  
HATCREEK TO PRESIDIO(7283)

| DATE     | TRANSVERSE |     | FORMAL ERR | # OBSERVATIONS |       |
|----------|------------|-----|------------|----------------|-------|
|          | (cm)       |     |            | WEIGHTED       | TOTAL |
| 84 2 26  |            | .7  | 2.5        | 8              | 29    |
| 85 3 10  |            | 6.5 | .6         | 17             | 54    |
| 85 10 19 |            | 8.4 | .2         | 62             | 64    |
| 85 10 23 |            | 9.1 | .3         | 59             | 63    |

TRANSVERSE:

Mean = 8.4 + .5 cm (scaled 1 sigma)

Weighted RMS scatter about the mean = .9 cm

Slope = 4.0 + .9 cm/yr (scaled 1 sigma)

Weighted RMS scatter about the line = .3 cm

TABLE 5.31  
VLBI TRANSVERSE EVOLUTION  
HATCREEK TO PT REYES(7251)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|--------------------|------------|----------------------------|-------------------------|
| 84 2 26  | 222.1              | 1.2        | 43                         | 54                      |
| 85 10 19 | 225.5              | .4         | 58                         | 65                      |

TRANSVERSE:

Mean =  $225.1 \pm 1.1$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = 1.1 cm

TABLE 5.32  
VLBI BASELINE TRANSVERSE EVOLUTION  
HATCREEK TO QUINCY(7221)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|--------------------|------------|----------------------------|-------------------------|
| 84 4 12  | -102.0             | .5         | 53                         | 60                      |
| 85 5 12  | -102.5             | .4         | 65                         | 69                      |
| 86 10 19 | -103.2             | .5         | 22                         | 62                      |

TRANSVERSE:

Mean =  $-102.6 \pm .3$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .5 cm  
Slope =  $-.5 \pm .0$  cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .0 cm

TABLE 5.33  
VLBI BASELINE TRANSVERSE EVOLUTION  
HATCREEK TO VERNAL(7290)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|--------------------|------------|----------------------------|-------------------------|
| 86 3 30 | 6.2                | .6         | 47                         | 52                      |

TABLE 5.34  
VLBI BASELINE TRANSVERSE EVOLUTION  
HATCREEK TO VNDNBERG(7111)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 23  | 5.5                | .6         | 28             | 51    |
| 84 2 26  | 8.3                | .6         | 35             | 54    |
| 84 4 12  | 6.1                | .6         | 56             | 68    |
| 85 3 1   | 8.9                | .4         | 16             | 21    |
| 85 3 10  | 8.7                | .4         |                |       |
| 85 5 12  | 10.9               | .3         |                |       |
| 85 5 15  | 10.6               | .4         | 78             | 88    |
| 85 9 30  | 12.1               | .3         | 94             | 112   |
| 85 10 19 | 11.1               | .3         |                |       |
| 85 10 23 | 11.5               | .4         |                |       |
| 85 12 12 | 11.4               | .2         | 54             | 59    |
| 86 4 7   | 12.4               | .7         | 9              | 22    |
| 86 5 21  | 12.1               | .3         |                |       |
| 86 10 19 | 12.2               | .4         |                |       |
| 86 10 23 | 14.5               | .4         |                |       |
| 86 10 29 | 12.9               | .4         |                |       |
| 86 12 10 | 14.7               | .4         | 41             | 43    |

TRANSVERSE:

Mean =  $11.2 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.0 cm  
 Slope =  $2.6 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 5.35  
VLBI BASELINE TRANSVERSE EVOLUTION  
HATCREEK TO YUMA(7894)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 85 3 1   | -1.3               | .5         | 18             | 21    |
| 86 5 21  | -.5                | .3         | 46             | 48    |
| 86 10 29 | .8                 | .5         | 42             | 58    |
| 86 12 10 | .6                 | .4         | 53             | 56    |

TRANSVERSE:

Mean =  $-.1 \pm .4$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope =  $1.1 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 5.36  
VLBI BASELINE TRANSVERSE EVOLUTION  
HRAS 085 TO MOJAVE12

| DATE |       | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|--------------------|------------|----------------|-------|
|      |       |                    |            | WEIGHTED       | TOTAL |
| 84   | 1 4   | .7                 | .5         | 205            | 210   |
| 84   | 4 12  | -.1                | .3         | 75             | 77    |
| 84   | 4 17  | 1.3                | .4         | 107            | 107   |
| 84   | 4 22  | -.0                | .4         | 97             | 102   |
| 84   | 4 25  | 1.1                | .4         | 81             | 82    |
| 84   | 4 26  | 1.2                | .6         | 52             | 61    |
| 85   | 3 1   | 2.3                | .4         | 55             | 58    |
| 85   | 3 5   | -3.4               | .4         | 146            | 156   |
| 85   | 3 10  | .1                 | .4         | 53             | 63    |
| 85   | 3 13  | 1.4                | .4         | 47             | 55    |
| 85   | 5 2   | .8                 | .3         | 97             | 98    |
| 85   | 5 6   | 1.8                | .3         | 93             | 104   |
| 85   | 5 7   | 2.5                | .4         | 90             | 91    |
| 85   | 5 9   | 1.8                | .6         | 137            | 139   |
| 85   | 5 12  | 3.2                | .3         | 68             | 68    |
| 85   | 5 14  | 1.3                | .3         | 68             | 71    |
| 85   | 8 24  | 1.2                | .5         | 115            | 124   |
| 85   | 10 19 | 1.5                | .4         | 66             | 69    |
| 85   | 10 23 | 1.3                | .4         | 65             | 69    |
| 85   | 10 29 | 1.5                | .5         | 82             | 82    |
| 85   | 11 2  | 2.1                | .4         | 45             | 47    |
| 85   | 11 5  | 2.1                | .3         | 67             | 70    |
| 85   | 12 12 | 1.7                | .3         | 45             | 72    |
| 86   | 1 5   | 2.5                | .6         | 60             | 72    |
| 86   | 2 23  | 1.2                | .3         | 83             | 88    |
| 86   | 2 26  | 2.3                | .3         | 69             | 75    |
| 86   | 3 26  | .9                 | .3         | 44             | 46    |
| 86   | 3 30  | 3.0                | .3         | 75             | 80    |
| 86   | 4 1   | 4.0                | .4         | 53             | 59    |
| 86   | 4 2   | 3.1                | .3         | 58             | 61    |
| 86   | 4 4   | 2.0                | .9         |                |       |
| 86   | 4 7   | 2.1                | .3         | 71             | 73    |
| 86   | 4 10  | .5                 | .3         | 72             | 80    |
| 86   | 5 14  | 2.3                | .9         |                |       |
| 86   | 5 18  | 3.8                | .2         | 83             | 85    |
| 86   | 5 21  | 2.2                | .3         | 84             | 85    |
| 86   | 10 16 | 2.0                | .6         |                |       |
| 86   | 10 19 | 1.3                | .3         | 77             | 78    |
| 86   | 10 26 | 2.7                | .2         | 85             | 89    |
| 86   | 10 29 | 3.4                | .3         | 83             | 88    |
| 86   | 10 31 | 2.4                | .3         | 212            | 241   |
| 86   | 11 1  | 2.7                | .3         | 77             | 79    |
| 86   | 12 10 | 1.7                | .4         | 71             | 75    |
| 86   | 12 13 | 1.8                | .3         | 71             | 83    |

TABLE 5.36 (continued)  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 HRAS 085 TO MOJAVE12

TRANSVERSE:

Mean =  $1.9 \pm .2$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope =  $.8 \pm .2$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 5.37  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 HRAS 085 TO MON PEAK(7274)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 12  | 612.5              | .4         | 67             | 74    |
| 85 3 1   | 616.4              | .6         | 57             | 61    |
| 85 5 12  | 617.3              | .6         |                |       |
| 85 5 14  | 614.4              | .7         | 65             | 74    |
| 85 11 5  | 616.6              | .4         | 64             | 64    |
| 85 12 12 | 618.4              | .5         | 46             | 74    |
| 86 1 5   | 617.4              | .7         | 67             | 69    |
| 86 2 23  | 616.5              | .5         | 59             | 60    |
| 86 4 7   | 616.3              | .5         | 45             | 46    |
| 86 5 18  | 618.6              | .4         | 77             | 79    |
| 86 5 21  | 617.6              | .4         | 71             | 73    |
| 86 10 19 | 618.7              | .4         |                |       |
| 86 10 26 | 619.1              | .4         | 83             | 85    |
| 86 10 29 | 619.6              | .5         | 83             | 85    |
| 86 12 10 | 619.0              | .4         | 73             | 73    |

TRANSVERSE:

Mean =  $617.3 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.0 cm  
 Slope =  $2.3 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 5.38  
VLBI BASELINE TRANSVERSE EVOLUTION  
HRAS 085 TO PINFLATS(7258)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|--------------------|------------|----------------------------|-------------------------|
| 85 11 2  | 302.1              | .5         | 43                         | 52                      |
| 86 2 26  | 303.4              | .8         | 46                         | 52                      |
| 86 4 10  | 301.9              | .6         | 3                          | 3                       |
| 86 11 1  | 303.7              | .4         | 60                         | 64                      |
| 86 12 13 | 304.5              | .4         | 70                         | 84                      |

TRANSVERSE:

Mean =  $303.5 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope =  $2.1 \pm .5$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 5.39  
VLBI BASELINE TRANSVERSE EVOLUTION  
HRAS 085 TO PLATTVIL(7258)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|--------------------|------------|----------------------------|-------------------------|
| 84 4 17 | -269.2             | .7         | 49                         | 100                     |
| 84 4 22 | -271.9             | .9         | 49                         | 94                      |
| 84 4 25 | -271.5             | .7         | 29                         | 66                      |
| 84 4 26 | -270.2             | .6         | 2                          | 48                      |
| 85 5 2  | -271.6             | .3         | 100                        | 107                     |
| 85 5 6  | -270.7             | .4         | 99                         | 105                     |
| 85 5 7  | -270.2             | .5         | 81                         | 87                      |
| 86 3 26 | -271.6             | .3         | 64                         | 66                      |
| 86 3 30 | -268.8             | .4         | 71                         | 76                      |
| 86 4 1  | -268.8             | .2         | 83                         | 86                      |
| 86 4 2  | -269.4             | .7         | 23                         | 31                      |

TRANSVERSE:

Mean =  $-270.2 \pm .4$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope =  $.7 \pm .5$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.1 cm

TABLE 5.40  
VLBI BASELINE TRANSVERSE EVOLUTION  
HRAS 085 TO VERNAL(7290)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------------------|-------|
| 86 3 30 | 2.8                | .4         | 61                         | 62    |

TABLE 5.41  
VLBI BASELINE TRANSVERSE EVOLUTION  
HRAS 085 TO YUMA(7894)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|----------|--------------------|------------|----------------------------|-------|
| 85 3 1   | 3.9                | .5         | 58                         | 60    |
| 85 11 2  | 3.3                | .7         | 50                         | 54    |
| 85 11 5  | 3.6                | .6         | 65                         | 70    |
| 86 4 10  | 1.2                | .6         | 65                         | 74    |
| 86 5 21  | 2.9                | .4         | 78                         | 80    |
| 86 10 29 | 3.7                | .3         | 81                         | 82    |
| 86 11 1  | 4.2                | .3         | 68                         | 75    |
| 86 12 10 | 2.5                | .5         | 70                         | 72    |
| 86 12 13 | 2.2                | .4         | 75                         | 84    |

TRANSVERSE:

Mean =  $3.2 \pm .3$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope =  $-.3 \pm .5$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 5.42  
VLBI BASELINE TRANSVERSE EVOLUTION  
JPL MV1(7263) TO MAMMOTH(7255)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 9   | -172.5             | .8         |                |       |
| 84 10 22 | -173.1             | 1.3        | 2              | 14    |
| 86 10 22 | -171.7             | .3         |                |       |

TRANSVERSE:

Mean = -171.9 + .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .4 cm  
 Slope = .4 + .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 5.43  
VLBI BASELINE TRANSVERSE EVOLUTION  
JPL MV1(7263) TO MOJAVE12

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 20  | 1.2                | 1.9        | 24             | 37    |
| 84 4 9   | 1.0                | .7         | 25             | 25    |
| 84 10 22 | 4.0                | 1.1        | 67             | 107   |
| 84 10 25 | 2.5                | 1.5        | 41             | 101   |
| 85 1 18  | 5.7                | 1.0        | 40             | 53    |
| 85 3 7   | 6.1                | .5         | 50             | 90    |
| 85 10 27 | 6.9                | .4         | 89             | 98    |
| 85 10 30 | 7.7                | .5         | 96             | 97    |
| 86 4 13  | 9.4                | .3         | 90             | 91    |
| 86 10 22 | 9.5                | .4         | 74             | 76    |
| 86 11 4  | 10.3               | .3         | 87             | 95    |
| 86 12 16 | 10.3               | .4         | 73             | 79    |

TRANSVERSE:

Mean = 8.6 + .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 2.3 cm  
 Slope = 3.0 + .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.44  
VLBI BASELINE TRANSVERSE EVOLUTION  
JPL MV1(7263) TO OVRO 130

| DATE     | TRANSVERSE |            | # OBSERVATIONS |       |
|----------|------------|------------|----------------|-------|
|          | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |
| 84 2 20  | -150.2     | 1.7        | 17             | 25    |
| 84 4 9   | -151.7     | .6         | 25             | 25    |
| 84 10 22 | -151.6     | 1.0        | 32             | 54    |
| 84 10 25 | -152.7     | 1.2        | 32             | 54    |
| 85 3 7   | -149.8     | .4         | 23             | 48    |
| 85 10 27 | -147.5     | .3         | 48             | 52    |
| 85 10 30 | -146.6     | .5         | 47             | 57    |
| 86 4 13  | -147.3     | .3         | 48             | 49    |
| 86 10 22 | -147.0     | .3         | 38             | 42    |
| 86 11 4  | -145.8     | .3         | 46             | 47    |

TRANSVERSE:

Mean =  $-147.4 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.6 cm  
 Slope =  $2.0 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 5.45  
VLBI BASELINE TRANSVERSE EVOLUTION  
JPL MV1(7263) TO PINFLATS(7258)

| DATE     | TRANSVERSE |            | # OBSERVATIONS |       |
|----------|------------|------------|----------------|-------|
|          | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |
| 85 1 18  | -18.6      | 1.3        | 2              | 89    |
| 85 10 30 | -19.2      | .8         |                |       |
| 86 4 13  | -18.5      | .5         |                |       |
| 86 11 4  | -17.8      | .5         |                |       |
| 86 12 16 | -18.2      | .5         | 42             | 86    |

TRANSVERSE:

Mean =  $-18.3 \pm .2$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .4 cm  
 Slope =  $.7 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 5.46  
VLBI BASELINE TRANSVERSE EVOLUTION  
JPL MV1(7263) TO VNDNBERG(7111)

| DATE     | TRANSVERSE |            | # OBSERVATIONS |       |  |
|----------|------------|------------|----------------|-------|--|
|          | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |  |
| 84 2 20  | -174.8     | 2.6        | 7              | 31    |  |
| 84 10 22 | -178.3     | 1.4        | 15             | 98    |  |
| 84 10 25 | -176.8     | 1.7        | 12             | 102   |  |
| 85 1 18  | -176.5     | .9         | 63             | 101   |  |
| 85 3 7   | -177.9     | .6         | 37             | 90    |  |
| 85 10 27 | -174.8     | .5         | 56             | 74    |  |
| 85 10 30 | -177.7     | .8         | 54             | 73    |  |
| 86 4 13  | -176.8     | .6         | 83             | 88    |  |
| 86 10 22 | -176.6     | .5         | 65             | 73    |  |
| 86 11 4  | -176.1     | .3         | 93             | 95    |  |
| 86 12 16 | -175.3     | .5         | 58             | 84    |  |

TRANSVERSE:

Mean = -176.3  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = .5  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .9 cm

TABLE 5.47  
VLBI BASELINE TRANSVERSE EVOLUTION  
KODIAK(7278) TO NOME(7279)

| DATE    | TRANSVERSE |            | # OBSERVATIONS |       |  |
|---------|------------|------------|----------------|-------|--|
|         | (cm)       | FORMAL ERR | WEIGHTED       | TOTAL |  |
| 84 7 23 | -178.5     | .9         | 6              | 232   |  |
| 85 7 18 | -176.5     | .7         | 6              | 84    |  |
| 86 7 22 | -177.7     | .6         |                |       |  |
| 86 7 24 | -176.8     | .5         |                |       |  |

TRANSVERSE:

Mean = -177.2  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope = .4  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 5.48  
VLBI BASELINE TRANSVERSE EVOLUTION  
MAMMOTH(7255) TO MOJAVE12

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 9   | -10.1              | .8         | 46             | 62    |
| 84 10 22 | -11.2              | .9         | 60             | 85    |
| 86 10 22 | -13.1              | .3         | 95             | 96    |

TRANSVERSE:

Mean = -12.6 ± .7 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = -1.1 ± .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .1 cm

TABLE 5.49  
VLBI BASELINE TRANSVERSE EVOLUTION  
MAMMOTH(7255) TO OVRO 130

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 9   | -16.0              | .8         | 48             | 60    |
| 84 10 22 | -16.8              | 1.1        | 22             | 43    |
| 86 10 22 | -18.5              | .3         | 50             | 54    |

TRANSVERSE:

Mean = -18.1 ± .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .9 cm  
 Slope = -.9 ± .0 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .1 cm

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TABLE 5.50  
VLBI BASELINE TRANSVERSE EVOLUTION  
MAMMOTH(7255) TO VNDNBERG(7111)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 10 22 | 26.1               | 1.1        | 44             | 75    |
| 86 10 22 | 30.3               | .2         | 87             | 88    |

TRANSVERSE:

Mean =  $30.1 \pm .9$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean =  $.9$  cm

TABLE 5.51  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO MON PEAK(7274)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 12  | -146.4             | .3         | 75             | 78    |
| 85 1 12  | -145.8             | 1.0        | 50             | 94    |
| 85 3 1   | -144.2             | .3         | 71             | 86    |
| 85 5 12  | -143.6             | .4         | 95             | 97    |
| 85 5 14  | -142.8             | .5         | 88             | 101   |
| 85 11 5  | -141.6             | .3         | 91             | 94    |
| 85 12 12 | -144.4             | .3         | 81             | 91    |
| 86 1 5   | -141.4             | .5         | 85             | 94    |
| 86 2 23  | -142.3             | .3         | 68             | 68    |
| 86 4 7   | -141.1             | .3         | 48             | 49    |
| 86 5 18  | -140.5             | .3         | 89             | 89    |
| 86 5 21  | -141.1             | .3         | 81             | 81    |
| 86 10 19 | -140.9             | .2         | 87             | 95    |
| 86 10 26 | -141.0             | .3         | 96             | 96    |
| 86 10 29 | -140.1             | .3         | 97             | 97    |
| 86 12 10 | -141.0             | .3         | 96             | 97    |

TRANSVERSE:

Mean =  $-142.0 \pm .5$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean =  $1.8$  cm  
Slope =  $2.1 \pm .3$  cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line =  $.8$  cm

**TABLE 5.52**  
**VLBI BASELINE TRANSVERSE EVOLUTION**  
**MOJAVE12 TO OCOTILLO(7270)**

| DATE |      | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|------|--------------------|------------|----------------|-------|
|      |      |                    |            | WEIGHTED       | TOTAL |
| 84   | 3 3  | .5                 | 1.6        | 33             | 47    |
| 85   | 1 15 | 3.2                | .5         | 81             | 100   |
| 85   | 3 4  | 2.0                | .4         | 81             | 86    |

**TRANSVERSE:**

Mean =  $2.4 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm

TABLE 5.53  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO OVRO 130

| DATE |       | TRANSVERSE | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|------------|------------|----------------|-------|
|      |       | (cm)       |            | WEIGHTED       | TOTAL |
| 84   | 2 20  | - .7       | .5         | 53             | 70    |
| 84   | 2 23  | 1.6        | .9         | 27             | 73    |
| 84   | 2 26  | 1.0        | 1.6        | 21             | 59    |
| 84   | 4 9   | .2         | .3         | 58             | 60    |
| 84   | 4 12  | -.3        | .2         | 74             | 76    |
| 84   | 4 26  | .0         | .2         | 83             | 96    |
| 84   | 10 22 | -.4        | .5         | 44             | 54    |
| 84   | 10 25 | -.6        | .4         | 52             | 55    |
| 84   | 10 28 | .2         | .4         | 53             | 59    |
| 85   | 3 1   | -1.2       | .4         | 39             | 44    |
| 85   | 3 4   | -.4        | .3         | 48             | 50    |
| 85   | 3 5   | -.8        | .4         | 121            | 147   |
| 85   | 3 7   | -1.4       | .3         | 32             | 48    |
| 85   | 3 10  | -.2        | .4         | 31             | 43    |
| 85   | 3 13  | -.5        | .3         | 32             | 40    |
| 85   | 5 7   | -.8        | .3         | 92             | 92    |
| 85   | 5 9   | .6         | .5         | 137            | 137   |
| 85   | 5 12  | -.2        | .2         | 48             | 56    |
| 85   | 5 14  | -.5        | .3         | 51             | 57    |
| 85   | 10 19 | -.4        | .3         | 48             | 51    |
| 85   | 10 23 | -.5        | .3         | 49             | 53    |
| 85   | 10 27 | -.9        | .3         | 51             | 53    |
| 85   | 10 29 | -1.1       | .3         | 131            | 133   |
| 85   | 10 30 | .1         | .4         | 52             | 55    |
| 86   | 4 1   | -1.7       | .3         | 47             | 56    |
| 86   | 4 2   | -1.0       | .3         | 16             | 20    |
| 86   | 4 4   | -.8        | .9         | 13             | 22    |
| 86   | 4 7   | -.9        | .2         | 44             | 46    |
| 86   | 4 10  | -1.0       | .3         | 48             | 49    |
| 86   | 4 13  | -1.3       | .2         | 49             | 49    |
| 86   | 5 14  | -1.1       | .9         |                |       |
| 86   | 5 18  | -.8        | .2         | 47             | 49    |
| 86   | 5 21  | -1.2       | .2         | 44             | 44    |
| 86   | 10 16 | -.9        | .4         | 117            | 125   |
| 86   | 10 19 | -.9        | .2         | 51             | 53    |
| 86   | 10 22 | -.1        | .3         | 50             | 55    |
| 86   | 10 26 | .2         | .2         | 50             | 52    |
| 86   | 10 29 | -.4        | .2         | 45             | 50    |
| 86   | 10 31 | -.0        | .5         |                |       |
| 86   | 11 1  | .1         | .2         | 46             | 49    |
| 86   | 11 4  | -.3        | .2         | 41             | 46    |

**TRANSVERSE:**

Mean =  $-.5 \pm .1$  cm (scaled 1 sigma)

Weighted RMS scatter about the mean =  $.5$  cm

Slope =  $-.1 \pm .1$  cm/yr (scaled 1 sigma)

Weighted RMS scatter about the line =  $.5$  cm

TABLE 5.54  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO PBLOSSOM(7254)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 20  | -189.5             | .7         | 58             | 81    |
| 84 10 25 | -186.6             | .5         | 75             | 99    |
| 85 3 7   | -186.3             | .3         | 73             | 84    |
| 85 10 27 | -185.5             | .5         | 87             | 91    |

**TRANSVERSE:**

Mean = -186.5  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = 2.1  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 5.55  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO PINFLATS(7258)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 10 28 | 223.4              | .6         | 86             | 106   |
| 84 10 31 | 224.4              | .3         | 77             | 96    |
| 85 1 18  | 224.2              | .9         | 55             | 59    |
| 85 10 30 | 225.1              | .4         | 93             | 97    |
| 85 11 2  | 226.2              | .3         | 65             | 77    |
| 86 2 26  | 226.4              | .6         | 66             | 71    |
| 86 4 10  | 225.8              | .3         | 61             | 68    |
| 86 4 13  | 225.5              | .3         | 92             | 92    |
| 86 11 1  | 226.7              | .3         | 59             | 68    |
| 86 11 4  | 226.0              | .3         | 82             | 90    |
| 86 12 13 | 226.8              | .2         | 76             | 96    |
| 86 12 16 | 226.3              | .3         | 87             | 91    |

**TRANSVERSE:**

Mean = 226.0  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope = 1.1  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 5.56  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO PLATTVIL(7258)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|---------|--------------------|------------|----------------|-------|
|         |                    |            | WEIGHTED       | TOTAL |
| 84 4 17 | -111.8             | 1.0        | 81             | 103   |
| 84 4 22 | -112.7             | 1.4        | 62             | 92    |
| 84 4 25 | -111.4             | 1.1        | 42             | 63    |
| 84 4 26 | -113.6             | .7         | 48             | 83    |
| 85 5 2  | -110.9             | .5         | 96             | 102   |
| 85 5 6  | -111.0             | .6         | 98             | 106   |
| 85 5 7  | -110.3             | .7         | 68             | 84    |
| 86 3 26 | -111.0             | .4         | 54             | 55    |
| 86 3 30 | -108.4             | .5         | 72             | 77    |
| 86 4 1  | -108.3             | .4         | 51             | 58    |
| 86 4 2  | -110.6             | 1.5        | 8              | 18    |

**TRANSVERSE:**

Mean = -110.4  $\pm$  .5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.5 cm  
 Slope = 1.7  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 5.57  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO PRESIDIO(7283)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 26  | 9.8                | 4.5        | 13             | 40    |
| 85 3 10  | 5.8                | 1.3        | 18             | 87    |
| 85 3 13  | 4.9                | .7         | 25             | 82    |
| 85 10 19 | 4.5                | .3         | 91             | 94    |
| 85 10 23 | 3.5                | .4         | 83             | 88    |

**TRANSVERSE:**

Mean = 4.3  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope = -2.0  $\pm$  1.0 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 5.58  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO PT REYES(7251)

| DATE     | TRANSVERSE | FORMAL ERR | # OBSERVATIONS |       |
|----------|------------|------------|----------------|-------|
|          | (cm)       |            | WEIGHTED       | TOTAL |
| 84 2 26  | -143.9     | 1.4        | 44             | 63    |
| 85 3 13  | -141.4     | .5         | 68             | 85    |
| 85 10 19 | -141.3     | .5         | 89             | 99    |

**TRANSVERSE:**

Mean = -141.5  $\pm$  .5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = 1.2  $\pm$  .6 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 5.59  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO PVERDES(7268)

| DATE   | TRANSVERSE | FORMAL ERR | # OBSERVATIONS |       |
|--------|------------|------------|----------------|-------|
|        | (cm)       |            | WEIGHTED       | TOTAL |
| 85 3 4 | 61.5       | .5         | 64             | 88    |

TABLE 5.60  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO QUINCY(7221)

| DATE     | TRANSVERSE | FORMAL ERR | # OBSERVATIONS |       |
|----------|------------|------------|----------------|-------|
|          | (cm)       |            | WEIGHTED       | TOTAL |
| 84 4 12  | 54.8       | .5         | 58             | 69    |
| 85 5 12  | 56.7       | .4         | 86             | 90    |
| 85 5 14  | 56.1       | .5         | 89             | 95    |
| 86 10 19 | 55.0       | .4         | 89             | 96    |

**TRANSVERSE:**

Mean = 55.7  $\pm$  .5 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope = -.3  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 5.61  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO SANPAULA(7255)

| DATE    | TRANSVERSE |            | WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|------------|------------|----------|-------------------------|
|         | (cm)       | FORMAL ERR |          |                         |
| 84 2 29 | 7.5        | 1.9        | 31       | 43                      |
| 85 1 9  | 8.6        | .7         | 87       | 96                      |

TRANSVERSE:

Mean =  $8.5 \pm .4$  cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .4 cm

TABLE 5.62  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO VERNAL(7290)

| DATE    | TRANSVERSE |            | WEIGHTED | # OBSERVATIONS<br>TOTAL |
|---------|------------|------------|----------|-------------------------|
|         | (cm)       | FORMAL ERR |          |                         |
| 86 3 30 | 5.9        | .5         | 59       | 63                      |

TABLE 5.63  
VLBI BASELINE TRANSVERSE EVOLUTION  
MOJAVE12 TO VNDNBERG(7111)

| DATE     | TRANSVERSE |     | FORMAL ERR | # OBSERVATIONS |       |
|----------|------------|-----|------------|----------------|-------|
|          | (cm)       |     |            | WEIGHTED       | TOTAL |
| 84 2 20  | 9.8        | .6  |            | 50             | 72    |
| 84 2 23  | 10.1       | .6  |            | 32             | 56    |
| 84 2 26  | 9.5        | .7  |            | 40             | 61    |
| 84 2 29  | 13.9       | 1.4 |            | 62             | 102   |
| 84 3 3   | 12.6       | 2.3 |            | 41             | 92    |
| 84 4 12  | 7.5        | .6  |            | 41             | 69    |
| 84 7 7   | 12.8       | .9  |            | 72             | 129   |
| 84 7 21  | 13.1       | .7  |            | 115            | 131   |
| 84 7 22  | 10.0       | .5  |            | 120            | 133   |
| 84 10 22 | 12.3       | .7  |            | 66             | 98    |
| 84 10 25 | 13.3       | .5  |            | 99             | 107   |
| 84 10 28 | 11.9       | .3  |            | 103            | 109   |
| 84 10 31 | 12.5       | .5  |            | 94             | 102   |
| 85 1 9   | 13.2       | .5  |            | 78             | 100   |
| 85 1 12  | 12.8       | .4  |            | 74             | 86    |
| 85 1 15  | 14.7       | .5  |            | 91             | 98    |
| 85 1 18  | 14.3       | .9  |            | 51             | 60    |
| 85 3 1   | 12.2       | .4  |            | 70             | 80    |
| 85 3 4   | 12.2       | .4  |            | 83             | 86    |
| 85 3 7   | 13.2       | .3  |            | 89             | 91    |
| 85 3 10  | 13.4       | .4  |            | 70             | 88    |
| 85 3 13  | 15.2       | .4  |            | 61             | 81    |
| 85 5 12  | 15.0       | .3  |            | 94             | 96    |
| 85 5 15  | 14.9       | .4  |            | 98             | 104   |
| 85 7 6   | 14.8       | .5  |            | 184            | 196   |
| 85 7 20  | 15.7       | .8  |            | 118            | 123   |
| 85 7 27  | 15.9       | .6  |            | 122            | 165   |
| 85 8 10  | 16.5       | .7  |            | 107            | 115   |
| 85 9 30  | 15.3       | .3  |            | 125            | 140   |
| 85 10 19 | 17.0       | .4  |            | 96             | 98    |
| 85 10 23 | 16.3       | .5  |            | 58             | 59    |
| 85 10 27 | 16.2       | .3  |            | 68             | 77    |
| 85 10 30 | 14.1       | .6  |            | 56             | 67    |
| 85 11 2  | 15.2       | .3  |            | 30             | 79    |
| 85 11 5  | 15.9       | .4  |            | 97             | 101   |
| 85 12 12 | 17.1       | .3  |            | 83             | 92    |
| 86 4 7   | 14.1       | 1.3 |            | 18             | 28    |
| 86 4 10  | 17.1       | .4  |            | 84             | 92    |
| 86 4 13  | 18.1       | .5  |            | 86             | 89    |
| 86 5 18  | 18.6       | .3  |            | 93             | 95    |
| 86 5 21  | 16.7       | .4  |            | 98             | 100   |
| 86 7 5   | 18.2       | .4  |            | 209            | 217   |
| 86 7 12  | 19.5       | .6  |            | 149            | 161   |
| 86 7 26  | 18.7       | .2  |            | 217            | 230   |

|          |      |    |     |     |
|----------|------|----|-----|-----|
| 86 8 2   | 19.5 | .4 | 175 | 182 |
| 86 10 19 | 20.0 | .3 | 99  | 99  |
| 86 10 22 | 18.4 | .3 | 90  | 91  |
| 86 10 23 | 18.9 | .3 | 114 | 116 |
| 86 10 26 | 20.4 | .3 | 93  | 98  |
| 86 10 29 | 19.1 | .3 | 98  | 98  |
| 86 11 1  | 19.4 | .2 | 86  | 92  |
| 86 11 4  | 19.4 | .3 | 84  | 93  |
| 86 12 10 | 21.3 | .5 | 72  | 74  |
| 86 12 13 | 20.3 | .3 | 86  | 96  |
| 86 12 16 | 20.4 | .4 | 84  | 87  |

TRANSVERSE:

Mean =  $16.6 \pm .4$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 3.0 cm  
 Slope =  $3.6 \pm .1$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 5.64  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 MOJAVE12 TO YUMA(7894)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|--------------------|------------|----------------------------|-------------------------|
| 84 10 31 | -.9                | 1.1        | 77                         | 109                     |
| 85 3 1   | -1.0               | .3         | 81                         | 87                      |
| 85 11 2  | -.3                | .5         | 61                         | 83                      |
| 85 11 5  | -1.1               | .5         | 91                         | 101                     |
| 86 4 10  | -.3                | .5         | 71                         | 76                      |
| 86 5 21  | -.0                | .3         | 88                         | 91                      |
| 86 10 29 | .1                 | .2         | 95                         | 95                      |
| 86 11 1  | -.8                | .3         | 74                         | 77                      |
| 86 12 10 | -.6                | .4         | 93                         | 96                      |
| 86 12 13 | -.5                | .3         | 82                         | 96                      |

TRANSVERSE:

Mean =  $-.4 \pm .1$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .4 cm  
 Slope =  $.3 \pm .2$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .4 cm

TABLE 5.65  
VLBI BASELINE TRANSVERSE EVOLUTION  
MON PEAK(7274) TO OVRO 130

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 12  | -248.3             | .3         | 68             | 70    |
| 85 3 1   | -247.1             | .4         | 40             | 43    |
| 85 5 12  | -245.7             | .4         | 54             | 56    |
| 85 5 14  | -245.2             | .5         | 53             | 58    |
| 86 4 7   | -244.0             | .4         | 26             | 28    |
| 86 5 18  | -243.6             | .3         | 44             | 47    |
| 86 5 21  | -244.5             | .3         |                |       |
| 86 10 19 | -244.7             | .3         | 47             | 53    |
| 86 10 26 | -243.5             | .3         |                |       |
| 86 10 29 | -243.1             | .4         |                |       |

TRANSVERSE:

Mean = -245.0  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.7 cm  
 Slope = 1.7  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.66  
VLBI BASELINE TRANSVERSE EVOLUTION  
MON PEAK(7274) TO QUINCY(7221)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 12  | -227.5             | .6         | 7              | 60    |
| 85 5 12  | -223.6             | .5         |                |       |
| 85 5 14  | -223.3             | .7         |                |       |
| 86 10 19 | -224.1             | .4         |                |       |

TRANSVERSE:

Mean = -224.5  $\pm$  .9 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.5 cm  
 Slope = 1.0  $\pm$  .7 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.2 cm

TABLE 5.67  
VLBI BASELINE TRANSVERSE EVOLUTION  
MON PEAK(7274) TO VNDNBERG(7111)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 12  | -568.1             | .6         | 2              | 69    |
| 85 1 12  | -567.9             | 1.5        | 23             | 83    |
| 85 3 1   | -566.7             | .5         | 52             | 81    |
| 85 5 12  | -564.1             | .5         | 85             | 96    |
| 85 11 5  | -564.3             | .4         | 90             | 95    |
| 85 12 12 | -565.7             | .5         | 75             | 90    |
| 86 4 7   | -565.8             | 1.3        | 6              | 14    |
| 86 5 18  | -562.9             | .4         | 83             | 87    |
| 86 5 21  | -564.7             | .5         |                |       |
| 86 10 19 | -564.0             | .3         | 91             | 95    |
| 86 10 26 | -562.7             | .4         | 86             | 94    |
| 86 10 29 | -563.5             | .5         |                |       |
| 86 12 10 | -563.0             | .5         | 65             | 73    |

**TRANSVERSE:**

Mean =  $-564.3 \pm .4$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.5 cm  
 Slope =  $1.7 \pm .3$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 5.68  
VLBI BASELINE TRANSVERSE EVOLUTION  
MON PEAK(7274) TO YUMA(7894)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 85 3 1   | 609.7              | .6         | 16             | 87    |
| 85 11 5  | 610.7              | .6         |                |       |
| 86 5 21  | 612.3              | .5         |                |       |
| 86 10 29 | 613.9              | .5         |                |       |
| 86 12 10 | 614.5              | .5         | 42             | 89    |

**TRANSVERSE:**

Mean =  $612.4 \pm .9$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.8 cm  
 Slope =  $2.7 \pm .2$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 5.69  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 NOME(7279) TO SNDPOINT(7280)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------|----------|-------|
| 84 7 14 | -91.9              | 2.3        |                |          |       |
| 85 7 25 | -87.7              | .6         | 3              |          | 41    |
| 86 7 31 | -87.6              | .5         |                |          |       |

TRANSVERSE:

Mean =  $-87.7 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope =  $.6 \pm .7$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.70  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 OCOTILLO(7270) TO OVRO 130

| DATE   | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|--------|--------------------|------------|----------------|----------|-------|
| 85 3 4 | 2.6                | .4         | 44             |          | 47    |

TABLE 5.71  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 OCOTILLO(7270) TO VNDNBERG(7111)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS | WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------|----------|-------|
| 84 3 3  | 8.9                | 3.1        | 3              |          | 41    |
| 85 1 15 | 18.3               | .7         | 74             |          | 97    |
| 85 3 4  | 15.0               | .5         | 80             |          | 82    |

TRANSVERSE:

Mean =  $15.9 \pm 1.3$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.9 cm

TABLE 5.72  
VLBI BASELINE TRANSVERSE EVOLUTION  
OVRO 130 TO PBLOSSOM(7254)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|--------------------|------------|----------------------------|-------------------------|
| 84 2 20  | 24.6               | .7         | 48                         | 70                      |
| 84 10 25 | 26.2               | .5         | 33                         | 49                      |
| 85 3 7   | 26.0               | .3         | 28                         | 44                      |
| 85 10 27 | 27.5               | .4         | 46                         | 51                      |

TRANSVERSE:

Mean =  $26.3 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope =  $1.6 \pm .4$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .3 cm

TABLE 5.73  
VLBI BASELINE TRANSVERSE EVOLUTION  
OVRO 130 TO PINFLATS(7258)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | # OBSERVATIONS<br>TOTAL |
|----------|--------------------|------------|----------------------------|-------------------------|
| 84 10 28 | 143.1              | .7         | 47                         | 56                      |
| 85 10 30 | 144.6              | .5         | 53                         | 56                      |
| 86 4 10  | 144.0              | .4         | 37                         | 40                      |
| 86 4 13  | 143.3              | .3         | 49                         | 50                      |
| 86 11 1  | 146.1              | .3         | 32                         | 39                      |
| 86 11 4  | 144.9              | .3         | 32                         | 45                      |

TRANSVERSE:

Mean =  $144.6 \pm .5$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope =  $1.4 \pm .7$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 5.74  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 OVRO 130 TO PLATTVIL(7258)

| DATE    | (cm)  | TRANSVERSE | # OBSERVATIONS |       |  |
|---------|-------|------------|----------------|-------|--|
|         |       | FORMAL ERR | WEIGHTED       | TOTAL |  |
| 84 4 26 | -60.8 | .7         | 60             | 82    |  |
| 85 5 7  | -57.8 | .8         | 82             | 87    |  |
| 86 4 1  | -57.2 | .4         | 66             | 71    |  |
| 86 4 2  | -59.0 | 1.5        | 13             | 19    |  |

TRANSVERSE:

Mean = -58.1  $\pm$  .8 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.4 cm  
 Slope = 1.7  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.75  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 OVRO 130 TO PRESIDIO(7283)

| DATE     | (cm) | TRANSVERSE | # OBSERVATIONS |       |  |
|----------|------|------------|----------------|-------|--|
|          |      | FORMAL ERR | WEIGHTED       | TOTAL |  |
| 84 2 26  | 6.2  | 5.1        |                |       |  |
| 85 3 10  | 7.4  | 1.4        |                |       |  |
| 85 3 13  | 8.1  | .8         | 26             | 42    |  |
| 85 10 19 | 7.5  | .4         | 49             | 51    |  |
| 85 10 23 | 7.2  | .5         | 39             | 45    |  |

TRANSVERSE:

Mean = 7.4  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .3 cm  
 Slope = -.8  $\pm$  .5 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 5.76  
VLBI BASELINE TRANSVERSE EVOLUTION  
OVRO 130 TO PT REYES(7251)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 26  | -84.6              | 2.3        | 5              | 56    |
| 85 3 13  | -76.9              | .6         | 31             | 48    |
| 85 10 19 | -77.0              | .6         |                |       |

TRANSVERSE:

Mean = -77.2  $\pm$  1.0 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.4 cm  
 Slope = 2.1  $\pm$  2.0 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.1 cm

TABLE 5.77  
VLBI BASELINE TRANSVERSE EVOLUTION  
OVRO 130 TO PVERDES(7268)

| DATE   | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|--------|--------------------|------------|----------------|-------|
|        |                    |            | WEIGHTED       | TOTAL |
| 85 3 4 | 76.4               | .4         | 36             | 48    |

TABLE 5.78  
VLBI BASELINE TRANSVERSE EVOLUTION  
OVRO 130 TO QUINCY(7221)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 4 12  | 45.7               | .5         | 44             | 55    |
| 85 5 12  | 47.5               | .4         | 48             | 51    |
| 85 5 14  | 47.1               | .5         | 53             | 55    |
| 86 10 19 | 46.2               | .4         | 47             | 50    |

TRANSVERSE:

Mean = 46.7  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .7 cm  
 Slope = -.0  $\pm$  .4 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 5.79  
VLBI BASELINE TRANSVERSE EVOLUTION  
OVRO 130 TO VNDNBERG(7111)

| DATE     | TRANSVERSE |      | FORMAL ERR | # OBSERVATIONS |       |
|----------|------------|------|------------|----------------|-------|
|          | (cm)       |      |            | WEIGHTED       | TOTAL |
| 84 2 20  |            | 10.4 | .6         | 34             | 60    |
| 84 2 23  |            | 8.2  | .8         | 9              | 55    |
| 84 2 26  |            | 7.8  | 1.0        | 7              | 57    |
| 84 4 12  |            | 8.4  | .6         | 41             | 63    |
| 84 10 22 |            | 12.4 | .5         | 29             | 47    |
| 84 10 25 |            | 13.6 | .4         | 50             | 54    |
| 84 10 28 |            | 12.9 | .3         | 53             | 59    |
| 85 3 1   |            | 14.3 | .4         | 34             | 40    |
| 85 3 4   |            | 14.4 | .3         | 45             | 49    |
| 85 3 7   |            | 13.8 | .3         | 34             | 48    |
| 85 3 10  |            | 14.0 | .4         | 39             | 43    |
| 85 3 13  |            | 16.6 | .4         | 39             | 42    |
| 85 5 12  |            | 16.1 | .3         | 50             | 53    |
| 85 10 19 |            | 18.0 | .4         | 50             | 52    |
| 85 10 23 |            | 18.2 | .4         | 27             | 29    |
| 85 10 27 |            | 17.4 | .3         | 37             | 43    |
| 85 10 30 |            | 15.9 | .5         | 31             | 40    |
| 86 4 7   |            | 17.2 | 1.0        | 8              | 16    |
| 86 4 10  |            | 19.1 | .4         | 47             | 50    |
| 86 4 13  |            | 20.0 | .4         | 46             | 49    |
| 86 5 18  |            | 19.9 | .3         | 45             | 48    |
| 86 5 21  |            | 19.2 | .4         | 46             | 47    |
| 86 10 19 |            | 20.1 | .2         | 51             | 53    |
| 86 10 22 |            | 19.4 | .2         | 46             | 51    |
| 86 10 26 |            | 21.0 | .3         | 48             | 49    |
| 86 10 29 |            | 20.3 | .3         | 43             | 50    |
| 86 11 1  |            | 21.3 | .2         | 47             | 51    |
| 86 11 4  |            | 21.7 | .2         | 45             | 46    |

TRANSVERSE:

Mean =  $17.9 \pm .6$  cm (scaled 1 sigma)

Weighted RMS scatter about the mean = 3.2 cm

Slope =  $3.9 \pm .2$  cm/yr (scaled 1 sigma)

Weighted RMS scatter about the line = .9 cm

TABLE 5.80  
VLBI BASELINE TRANSVERSE EVOLUTION  
OVRO 130 TO YUMA(7894)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 85 3 1   | -2.2               | .4         | 38             | 42    |
| 86 4 10  | -1.2               | .5         |                |       |
| 86 5 21  | -1.2               | .3         | 40             | 40    |
| 86 10 29 | -.1                | .3         | 45             | 49    |
| 86 11 1  | -.5                | .3         | 40             | 42    |

TRANSVERSE:

Mean =  $-.8 \pm .3$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope =  $1.2 \pm .2$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .2 cm

TABLE 5.81  
VLBI BASELINE TRANSVERSE EVOLUTION  
PBLOSSOM(7254) TO VNDNBERG(7111)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 2 20  | 269.8              | .8         | 21             | 70    |
| 84 10 25 | 270.7              | .7         | 69             | 101   |
| 85 3 7   | 270.5              | .4         | 76             | 83    |
| 85 10 27 | 272.9              | .6         | 55             | 69    |

TRANSVERSE:

Mean =  $271.0 \pm .6$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope =  $1.8 \pm .7$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .5 cm

TABLE 5.82  
VLBI BASELINE TRANSVERSE EVOLUTION  
PINFLATS(7258) TO VNDNBERG(7111)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 10 28 | -265.4             | .9         | 72             | 106   |
| 84 10 31 | -264.1             | .6         | 56             | 87    |
| 85 1 18  | -262.8             | 1.2        | 85             | 108   |
| 85 10 30 | -264.4             | .7         | 59             | 73    |
| 85 11 2  | -262.6             | .5         | 39             | 89    |
| 86 4 10  | -262.8             | .6         | 64             | 69    |
| 86 4 13  | -263.1             | .6         | 73             | 91    |
| 86 11 1  | -260.4             | .4         | 61             | 69    |
| 86 11 4  | -261.6             | .5         | 70             | 89    |
| 86 12 13 | -261.7             | .3         | 64             | 97    |
| 86 12 16 | -261.3             | .5         | 80             | 95    |

TRANSVERSE:

Mean = -262.1  $\pm$  .4 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.3 cm  
 Slope = 1.6  $\pm$  .3 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .7 cm

TABLE 5.83  
VLBI BASELINE TRANSVERSE EVOLUTION  
PINFLATS(7258) TO YUMA(7894)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 10 31 | 253.8              | 1.3        | 9              | 96    |
| 85 11 2  | 253.1              | .7         |                |       |
| 86 4 10  | 254.9              | .7         |                |       |
| 86 11 1  | 253.7              | .4         | 16             | 25    |
| 86 12 13 | 256.2              | .4         |                |       |

TRANSVERSE:

Mean = 254.7  $\pm$  .6 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.2 cm  
 Slope = 1.1  $\pm$  1.0 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.1 cm

TABLE 5.84  
VLBI BASELINE TRANSVERSE EVOLUTION  
PLATTVIL(7258) TO VERNAL(7290)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------------------|-------|
| 86 3 30 | 9.6                | .7         | 35                         | 56    |

TABLE 5.85  
VLBI BASELINE TRANSVERSE EVOLUTION  
PRESIDIO(7283) TO PT REYES(7251)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|----------|--------------------|------------|----------------------------|-------|
| 84 2 26  | -187.3             | 4.4        |                            |       |
| 85 3 13  | -179.4             | .8         | 2                          | 31    |
| 85 10 19 | -178.8             | .5         |                            |       |

TRANSVERSE:

Mean =  $-179.1 \pm .6$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .9 cm  
 Slope =  $2.0 \pm 1.4$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.86  
VLBI BASELINE TRANSVERSE EVOLUTION  
PRESIDIO(7283) TO VNDNBERG(7111)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|----------|--------------------|------------|----------------------------|-------|
| 84 2 26  | 11.1               | 3.1        |                            |       |
| 85 3 10  | 5.0                | 1.0        |                            |       |
| 85 3 13  | 3.3                | .6         | 19                         | 84    |
| 85 10 19 | 3.2                | .3         | 89                         | 94    |
| 85 10 23 | 2.6                | .5         | 26                         | 49    |

TRANSVERSE:

Mean =  $3.2 \pm .4$  cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .8 cm  
 Slope =  $-2.0 \pm 1.1$  cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 5.87  
VLBI BASELINE TRANSVERSE EVOLUTION  
PT REYES(7251) TO VNDNBERG(7111)

| DATE     | TRANSVERSE | FORMAL ERR | # OBSERVATIONS |       |
|----------|------------|------------|----------------|-------|
|          | (cm)       |            | WEIGHTED       | TOTAL |
| 84 2 26  | -231.0     | 1.3        | 18             | 57    |
| 85 3 13  | -231.1     | .5         | 50             | 84    |
| 85 10 19 | -230.8     | .5         |                |       |

TRANSVERSE:

Mean = -231.0  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .1 cm  
 Slope = .2  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .1 cm

TABLE 5.88  
VLBI BASELINE TRANSVERSE EVOLUTION  
PVERDES(7268) TO VNDNBERG(7111)

| DATE   | TRANSVERSE | FORMAL ERR | # OBSERVATIONS |       |
|--------|------------|------------|----------------|-------|
|        | (cm)       |            | WEIGHTED       | TOTAL |
| 85 3 4 | 35.0       | .6         | 50             | 84    |

TABLE 5.89  
VLBI BASELINE TRANSVERSE EVOLUTION  
SANPAULA(7255) TO VNDNBERG(7111)

| DATE    | TRANSVERSE | FORMAL ERR | # OBSERVATIONS |       |
|---------|------------|------------|----------------|-------|
|         | (cm)       |            | WEIGHTED       | TOTAL |
| 84 2 29 | 1.7        | 2.3        |                |       |
| 85 1 9  | 4.8        | .7         | 45             | 82    |

TRANSVERSE:

Mean = 4.5  $\pm$  .9 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .9 cm

TABLE 5.90  
VLBI BASELINE TRANSVERSE EVOLUTION  
SOURDOGH(7281) TO WHTHORSE(7284)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------------------|-------|
| 84 8 7  | -42.4              | 1.5        | 7                          | 217   |
| 86 8 18 | -44.1              | .5         |                            |       |
| 86 8 20 | -45.1              | .4         |                            |       |

TRANSVERSE:

Mean = -44.6 ± .5 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .7 cm

TABLE 5.91  
VLBI BASELINE TRANSVERSE EVOLUTION  
SOURDOGH(7281) TO YAKATAGA(7277)

| DATE    | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS<br>WEIGHTED | TOTAL |
|---------|--------------------|------------|----------------------------|-------|
| 84 7 31 | -10.6              | .6         | 29                         | 225   |
| 85 8 5  | -11.8              | .4         | 39                         | 189   |
| 86 8 11 | -11.2              | .4         |                            |       |
| 86 8 13 | -11.1              | .5         |                            |       |

TRANSVERSE:

Mean = -11.3 ± .2 cm (scaled 1 sigma)  
Weighted RMS scatter about the mean = .4 cm  
Slope = -.1 ± .3 cm/yr (scaled 1 sigma)  
Weighted RMS scatter about the line = .4 cm

TABLE 5.92  
 VLBI BASELINE TRANSVERSE EVOLUTION  
 VNDNBERG(7111) TO YUMA(7894)

| DATE     | TRANSVERSE<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|----------|--------------------|------------|----------------|-------|
|          |                    |            | WEIGHTED       | TOTAL |
| 84 10 31 | 6.5                | 1.3        | 23             | 102   |
| 85 3 1   | 5.1                | .4         | 76             | 82    |
| 85 11 2  | 7.2                | .7         | 33             | 92    |
| 85 11 5  | 7.6                | .6         | 81             | 101   |
| 86 4 10  | 8.8                | .6         | 68             | 77    |
| 86 5 21  | 8.8                | .4         | 96             | 97    |
| 86 10 29 | 11.1               | .3         | 92             | 92    |
| 86 11 1  | 10.0               | .3         | 73             | 78    |
| 86 12 10 | 12.5               | .6         | 60             | 71    |
| 86 12 13 | 11.3               | .4         | 76             | 97    |

**TRANSVERSE:**

Mean =            9.4 + .7 cm (scaled 1 sigma)

Weighted RMS scatter about the mean = 2.2 cm

Slope = 3.3 + .3 cm/yr (scaled 1 sigma)

Weighted RMS scatter about the line = .6 cm

TABLE 6.1  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO HRAS 085

| DATE |       | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|----------------|------------|----------------|-------|
|      |       |                |            | WEIGHTED       | TOTAL |
| 83   | 6 6   | 193347361.1    | .5         | 35             | 50    |
| 83   | 6 9   | 193347362.7    | 1.6        | 42             | 90    |
| 83   | 6 27  | 193347364.5    | .9         | 40             | 69    |
| 83   | 6 29  | 193347362.3    | .5         | 58             | 70    |
| 84   | 4 12  | 193347362.5    | .5         | 67             | 73    |
| 84   | 4 17  | 193347363.2    | .8         | 100            | 102   |
| 84   | 4 25  | 193347366.1    | .7         | 76             | 76    |
| 84   | 4 26  | 193347363.1    | .7         | 44             | 57    |
| 85   | 3 1   | 193347367.5    | .6         | 13             | 15    |
| 85   | 3 10  | 193347364.0    | .4         | 40             | 47    |
| 85   | 5 2   | 193347364.5    | .3         | 90             | 102   |
| 85   | 5 6   | 193347363.5    | .5         | 84             | 90    |
| 85   | 5 7   | 193347363.9    | .6         | 23             | 86    |
| 85   | 5 12  | 193347365.1    | .3         | 61             | 64    |
| 85   | 10 19 | 193347365.7    | .5         | 55             | 59    |
| 85   | 10 23 | 193347366.1    | .5         | 44             | 51    |
| 85   | 12 12 | 193347364.3    | .6         | 30             | 46    |
| 86   | 3 26  | 193347364.9    | .4         | 50             | 55    |
| 86   | 3 30  | 193347365.7    | .5         | 53             | 59    |
| 86   | 4 1   | 193347366.6    | .4         | 73             | 85    |
| 86   | 4 2   | 193347365.3    | .3         | 54             | 64    |
| 86   | 4 7   | 193347366.0    | .4         | 52             | 55    |
| 86   | 5 21  | 193347366.3    | .4         | 48             | 50    |
| 86   | 10 19 | 193347364.5    | .7         | 30             | 52    |
| 86   | 10 29 | 193347365.7    | .7         | 46             | 54    |
| 86   | 10 31 | 193347364.1    | .6         |                |       |
| 86   | 12 10 | 193347364.9    | .6         | 46             | 47    |

**LENGTH:**

Mean = 193347364.8  $\pm$  .3 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.4 cm  
 Slope = 1.0  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = 1.0 cm

TABLE 6.2  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO MOJAVE12

| DATE |       | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|----------------|------------|----------------|-------|
|      |       |                |            | WEIGHTED       | TOTAL |
| 83   | 6 27  | 72914866.1     | .7         | 31             | 63    |
| 83   | 6 29  | 72914866.6     | .4         | 64             | 111   |
| 84   | 2 23  | 72914865.2     | .7         | 63             | 71    |
| 84   | 2 24  | 72914865.5     | .9         | 105            | 111   |
| 84   | 2 26  | 72914865.5     | .9         | 40             | 55    |
| 84   | 4 12  | 72914866.7     | .3         | 68             | 73    |
| 84   | 4 17  | 72914867.8     | .5         | 92             | 100   |
| 84   | 4 25  | 72914866.1     | .3         | 70             | 75    |
| 84   | 4 26  | 72914866.9     | .5         | 68             | 89    |
| 85   | 3 1   | 72914867.8     | .5         | 17             | 20    |
| 85   | 3 10  | 72914865.8     | .3         | 49             | 54    |
| 85   | 5 2   | 72914867.2     | .3         | 89             | 100   |
| 85   | 5 6   | 72914866.0     | .3         | 80             | 91    |
| 85   | 5 7   | 72914866.7     | .5         | 77             | 89    |
| 85   | 5 12  | 72914866.7     | .3         | 62             | 65    |
| 85   | 5 15  | 72914867.6     | .3         | 103            | 114   |
| 85   | 9 30  | 72914867.5     | .4         | 93             | 118   |
| 85   | 10 19 | 72914866.4     | .4         | 64             | 65    |
| 85   | 10 23 | 72914867.0     | .4         | 59             | 68    |
| 85   | 12 12 | 72914866.6     | .3         | 52             | 58    |
| 86   | 3 26  | 72914867.9     | .4         | 40             | 43    |
| 86   | 3 30  | 72914867.6     | .5         | 51             | 56    |
| 86   | 4 1   | 72914867.0     | .5         | 50             | 56    |
| 86   | 4 2   | 72914867.1     | .3         | 46             | 51    |
| 86   | 4 7   | 72914866.3     | .4         | 55             | 57    |
| 86   | 4 8   | 72914867.4     | .5         |                |       |
| 86   | 5 21  | 72914866.7     | .3         | 47             | 55    |
| 86   | 10 19 | 72914866.9     | .5         | 37             | 64    |
| 86   | 10 23 | 72914866.1     | .4         |                |       |
| 86   | 10 29 | 72914868.2     | .7         | 41             | 62    |
| 86   | 10 31 | 72914867.1     | .5         |                |       |
| 86   | 12 10 | 72914867.1     | .5         | 56             | 57    |

LENGTH:

Mean = 72914866.8  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = .2  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm

TABLE 6.3  
VLBI BASELINE LENGTH EVOLUTION  
HATCREEK TO OVRO 130

| DATE |       | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|----------------|------------|----------------|-------|
|      |       |                |            | WEIGHTED       | TOTAL |
| 83   | 6 6   | 48432153.3     | .6         | 37             | 52    |
| 83   | 6 7   | 48432151.5     | 1.6        | 13             | 49    |
| 83   | 6 27  | 48432152.3     | .7         | 36             | 64    |
| 83   | 6 29  | 48432152.2     | .4         | 64             | 102   |
| 84   | 2 23  | 48432150.4     | 1.0        | 32             | 68    |
| 84   | 2 26  | 48432147.4     | 1.3        | 21             | 51    |
| 84   | 4 12  | 48432153.1     | .3         | 70             | 75    |
| 84   | 4 26  | 48432153.1     | .5         | 69             | 90    |
| 85   | 3 1   | 48432154.7     | .6         | 11             | 11    |
| 85   | 3 10  | 48432151.0     | .4         | 28             | 29    |
| 85   | 5 7   | 48432153.1     | .5         |                |       |
| 85   | 5 12  | 48432152.8     | .3         | 40             | 44    |
| 85   | 10 19 | 48432152.5     | .4         | 38             | 42    |
| 85   | 10 23 | 48432154.1     | .4         | 33             | 42    |
| 86   | 4 1   | 48432154.0     | .5         |                |       |
| 86   | 4 2   | 48432154.0     | .4         | 39             | 50    |
| 86   | 4 7   | 48432152.8     | .4         | 33             | 34    |
| 86   | 5 21  | 48432153.6     | .3         | 25             | 28    |
| 86   | 10 19 | 48432152.1     | .5         | 25             | 40    |
| 86   | 10 29 | 48432153.8     | .7         | 25             | 37    |
| 86   | 10 31 | 48432152.5     | .6         | 35             | 59    |

LENGTH:

Mean = 48432152.9  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = .3  $\pm$  .2 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .9 cm

TABLE 6.4  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO MOJAVE12

|    |       |             | LENGTH |     | # OBSERVATIONS |       |
|----|-------|-------------|--------|-----|----------------|-------|
|    | DATE  | (cm)        | FORMAL | ERR | WEIGHTED       | TOTAL |
| 83 | 6 27  | 131336816.7 | .5     |     | 78             | 83    |
| 83 | 6 28  | 131336815.3 | .9     |     | 50             | 53    |
| 83 | 6 29  | 131336814.3 | .5     |     | 87             | 98    |
| 83 | 7 25  | 131336815.8 | .7     |     | 165            | 184   |
| 83 | 8  8  | 131336814.0 | .7     |     | 153            | 166   |
| 83 | 8 23  | 131336816.4 | .5     |     | 125            | 134   |
| 83 | 9 27  | 131336814.3 | .5     |     | 198            | 211   |
| 83 | 10 12 | 131336815.0 | .5     |     | 205            | 212   |
| 83 | 10 27 | 131336815.5 | .6     |     | 117            | 118   |
| 83 | 11  5 | 131336813.4 | .5     |     | 51             | 65    |
| 83 | 11  8 | 131336815.8 | .7     |     | 71             | 77    |
| 83 | 11 21 | 131336815.6 | .5     |     | 100            | 104   |
| 83 | 12  1 | 131336815.2 | .5     |     | 170            | 174   |
| 84 | 1  4  | 131336815.0 | .5     |     | 205            | 210   |
| 84 | 4 12  | 131336814.4 | .4     |     | 75             | 77    |
| 84 | 4 17  | 131336816.0 | .7     |     | 107            | 107   |
| 84 | 4 22  | 131336815.5 | .7     |     | 97             | 102   |
| 84 | 4 25  | 131336818.2 | .5     |     | 81             | 82    |
| 84 | 4 26  | 131336814.5 | .5     |     | 52             | 61    |
| 85 | 3  1  | 131336816.1 | .4     |     | 55             | 58    |
| 85 | 3  5  | 131336816.6 | .3     |     | 146            | 156   |
| 85 | 3 10  | 131336815.8 | .3     |     | 53             | 63    |
| 85 | 3 13  | 131336816.2 | .3     |     | 47             | 55    |
| 85 | 5  2  | 131336816.3 | .2     |     | 97             | 98    |
| 85 | 5  6  | 131336815.7 | .4     |     | 93             | 104   |
| 85 | 5  7  | 131336816.1 | .3     |     | 90             | 91    |
| 85 | 5  9  | 131336816.0 | .4     |     | 137            | 139   |
| 85 | 5 12  | 131336816.9 | .2     |     | 68             | 68    |
| 85 | 5 14  | 131336816.8 | .4     |     | 68             | 71    |
| 85 | 8 24  | 131336814.6 | .5     |     | 115            | 124   |
| 85 | 10 19 | 131336817.1 | .4     |     | 66             | 69    |
| 85 | 10 23 | 131336816.9 | .4     |     | 65             | 69    |
| 85 | 10 29 | 131336816.4 | .4     |     | 82             | 82    |
| 85 | 11  2 | 131336817.7 | .3     |     | 45             | 47    |
| 85 | 11  5 | 131336816.5 | .3     |     | 67             | 70    |
| 85 | 12 12 | 131336816.4 | .5     |     | 45             | 72    |
| 86 | 1  5  | 131336814.4 | .6     |     | 60             | 72    |
| 86 | 2 23  | 131336817.2 | .3     |     | 83             | 88    |
| 86 | 2 26  | 131336816.3 | .4     |     | 69             | 75    |
| 86 | 3 26  | 131336816.1 | .3     |     | 44             | 46    |
| 86 | 3 30  | 131336816.2 | .4     |     | 75             | 80    |
| 86 | 4  1  | 131336818.1 | .3     |     | 53             | 59    |
| 86 | 4  2  | 131336816.6 | .3     |     | 58             | 61    |
| 86 | 4  4  | 131336818.2 | .6     |     |                |       |

|    |    |    |             |    |     |     |
|----|----|----|-------------|----|-----|-----|
| 86 | 4  | 7  | 131336817.5 | .3 | 71  | 73  |
| 86 | 4  | 10 | 131336816.4 | .4 | 72  | 80  |
| 86 | 5  | 14 | 131336817.1 | .5 |     |     |
| 86 | 5  | 18 | 131336816.8 | .3 | 83  | 85  |
| 86 | 5  | 21 | 131336817.4 | .3 | 84  | 85  |
| 86 | 10 | 16 | 131336817.9 | .4 |     |     |
| 86 | 10 | 19 | 131336815.6 | .4 | 77  | 78  |
| 86 | 10 | 26 | 131336816.8 | .3 | 85  | 89  |
| 86 | 10 | 29 | 131336816.6 | .3 | 83  | 88  |
| 86 | 10 | 31 | 131336815.1 | .3 | 212 | 241 |
| 86 | 11 | 1  | 131336817.5 | .3 | 77  | 79  |
| 86 | 12 | 10 | 131336817.5 | .5 | 71  | 75  |
| 86 | 12 | 13 | 131336816.5 | .4 | 71  | 83  |

**LENGTH:**

Mean = 131336816.4  $\pm$  .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.0 cm  
 Slope = .5  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 6.5  
VLBI BASELINE LENGTH EVOLUTION  
HRAS 085 TO OVRO 130

| DATE |       | LENGTH<br>(cm) | FORMAL ERR | # OBSERVATIONS |       |
|------|-------|----------------|------------|----------------|-------|
|      |       |                |            | WEIGHTED       | TOTAL |
| 80   | 4 11  | 150819537.0    | .7         | 195            | 221   |
| 80   | 7 26  | 150819536.4    | 1.2        | 98             | 113   |
| 80   | 7 27  | 150819535.2    | 1.1        | 107            | 122   |
| 80   | 9 26  | 150819537.3    | 1.5        | 62             | 104   |
| 80   | 9 27  | 150819538.5    | 1.1        | 69             | 89    |
| 80   | 9 28  | 150819537.2    | .8         | 69             | 86    |
| 80   | 9 29  | 150819534.6    | 1.2        | 67             | 92    |
| 80   | 9 30  | 150819535.3    | 1.1        | 30             | 42    |
| 80   | 10 1  | 150819536.7    | 1.2        | 87             | 120   |
| 80   | 10 2  | 150819537.1    | .8         | 75             | 88    |
| 80   | 10 16 | 150819537.0    | .7         | 87             | 102   |
| 80   | 10 17 | 150819539.5    | .8         | 79             | 95    |
| 80   | 10 18 | 150819538.4    | .9         | 90             | 97    |
| 80   | 10 19 | 150819535.4    | 1.9        | 26             | 100   |
| 80   | 10 20 | 150819535.5    | .7         | 91             | 95    |
| 80   | 10 21 | 150819537.2    | .8         | 87             | 99    |
| 80   | 10 22 | 150819537.1    | .6         | 90             | 101   |
| 81   | 6 16  | 150819537.1    | .7         | 155            | 168   |
| 81   | 11 18 | 150819538.5    | .4         | 92             | 95    |
| 81   | 11 19 | 150819537.5    | .6         | 118            | 144   |
| 82   | 6 20  | 150819537.6    | .9         | 70             | 80    |
| 82   | 6 21  | 150819538.0    | .8         | 57             | 72    |
| 82   | 10 16 | 150819537.7    | .8         | 60             | 84    |
| 82   | 10 17 | 150819538.0    | .4         | 82             | 93    |
| 82   | 10 18 | 150819538.3    | .7         | 88             | 90    |
| 82   | 10 23 | 150819539.5    | .5         | 79             | 99    |
| 82   | 10 25 | 150819539.3    | 1.2        | 91             | 96    |
| 82   | 12 15 | 150819539.3    | .6         | 119            | 124   |
| 82   | 12 16 | 150819537.6    | .6         | 101            | 101   |
| 83   | 6 6   | 150819536.8    | .4         | 76             | 99    |
| 83   | 6 27  | 150819540.7    | .7         | 50             | 63    |
| 83   | 6 29  | 150819538.4    | .5         | 49             | 62    |
| 83   | 8 23  | 150819539.9    | .6         | 108            | 117   |
| 83   | 11 5  | 150819537.7    | .6         | 40             | 63    |
| 84   | 4 12  | 150819538.7    | .5         | 66             | 74    |
| 84   | 4 26  | 150819538.4    | .5         | 50             | 60    |
| 85   | 3 1   | 150819540.9    | .5         | 26             | 28    |
| 85   | 3 5   | 150819541.0    | .3         | 106            | 114   |
| 85   | 3 10  | 150819540.6    | .4         | 28             | 30    |
| 85   | 3 13  | 150819539.8    | .4         | 27             | 31    |
| 85   | 5 7   | 150819540.5    | .3         | 85             | 90    |
| 85   | 5 9   | 150819539.0    | .4         | 102            | 104   |
| 85   | 5 12  | 150819540.1    | .3         | 40             | 43    |

|    |    |    |             |    |    |    |
|----|----|----|-------------|----|----|----|
| 85 | 5  | 14 | 150819540.9 | .4 | 38 | 44 |
| 85 | 10 | 19 | 150819540.0 | .5 | 34 | 38 |
| 85 | 10 | 23 | 150819541.1 | .5 | 34 | 41 |
| 85 | 10 | 29 | 150819541.1 | .4 | 64 | 64 |
| 86 | 4  | 1  | 150819542.0 | .4 | 63 | 73 |
| 86 | 4  | 2  | 150819540.4 | .3 | 48 | 57 |
| 86 | 4  | 4  | 150819542.9 | .7 |    |    |
| 86 | 4  | 7  | 150819541.9 | .4 | 36 | 39 |
| 86 | 4  | 10 | 150819540.8 | .5 |    |    |
| 86 | 5  | 14 | 150819542.2 | .6 |    |    |
| 86 | 5  | 18 | 150819541.5 | .3 | 38 | 41 |
| 86 | 5  | 21 | 150819541.6 | .4 | 39 | 40 |
| 86 | 10 | 16 | 150819542.1 | .4 |    |    |
| 86 | 10 | 19 | 150819541.6 | .4 | 39 | 43 |
| 86 | 10 | 26 | 150819541.3 | .4 |    |    |
| 86 | 10 | 29 | 150819541.2 | .4 | 39 | 44 |
| 86 | 10 | 31 | 150819541.3 | .6 |    |    |
| 86 | 11 | 1  | 150819542.3 | .4 | 40 | 43 |

LENGTH:

Mean = 150819540.0  $\pm$  .2 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = 1.7 cm  
 Slope = .8  $\pm$  .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .8 cm

TABLE 6.6  
VLBI BASELINE LENGTH EVOLUTION  
MOJAVE12 TO OVRO 130

| DATE     | (cm) | LENGTH     | FORMAL ERR | # OBSERVATIONS |       |
|----------|------|------------|------------|----------------|-------|
|          |      |            |            | WEIGHTED       | TOTAL |
| 83 6 27  |      | 24527644.8 | .5         | 47             | 59    |
| 83 6 29  |      | 24527645.3 | .2         | 86             | 104   |
| 83 8 22  |      | 24527645.4 | .7         | 64             | 65    |
| 83 8 23  |      | 24527645.6 | .4         | 119            | 124   |
| 83 8 25  |      | 24527645.3 | .5         | 42             | 59    |
| 83 8 27  |      | 24527645.5 | .5         | 60             | 74    |
| 83 8 31  |      | 24527645.5 | .6         | 65             | 70    |
| 83 10 31 |      | 24527645.4 | .3         | 49             | 66    |
| 83 11 5  |      | 24527645.0 | .2         | 62             | 77    |
| 83 11 12 |      | 24527645.8 | .9         | 69             | 78    |
| 84 2 20  |      | 24527645.3 | .6         | 53             | 70    |
| 84 2 23  |      | 24527647.1 | 1.1        | 27             | 73    |
| 84 2 26  |      | 24527648.5 | 1.4        | 21             | 59    |
| 84 4 9   |      | 24527644.4 | .6         | 58             | 60    |
| 84 4 12  |      | 24527644.9 | .2         | 74             | 76    |
| 84 4 26  |      | 24527644.8 | .3         | 83             | 96    |
| 84 10 22 |      | 24527645.1 | .6         | 44             | 54    |
| 84 10 25 |      | 24527644.6 | .5         | 52             | 55    |
| 84 10 28 |      | 24527644.8 | .4         | 53             | 59    |
| 85 3 1   |      | 24527644.1 | .4         | 39             | 44    |
| 85 3 4   |      | 24527644.3 | .3         | 48             | 50    |
| 85 3 5   |      | 24527644.9 | .3         | 121            | 147   |
| 85 3 7   |      | 24527644.6 | .3         | 32             | 48    |
| 85 3 10  |      | 24527645.9 | .4         | 31             | 43    |
| 85 3 13  |      | 24527644.5 | .4         | 32             | 40    |
| 85 5 7   |      | 24527644.7 | .4         | 92             | 92    |
| 85 5 9   |      | 24527644.6 | .4         | 137            | 137   |
| 85 5 12  |      | 24527644.5 | .2         | 48             | 56    |
| 85 5 14  |      | 24527645.4 | .3         | 51             | 57    |
| 85 10 19 |      | 24527644.4 | .3         | 48             | 51    |
| 85 10 23 |      | 24527644.1 | .4         | 49             | 53    |
| 85 10 27 |      | 24527644.6 | .4         | 51             | 53    |
| 85 10 29 |      | 24527644.9 | .2         | 131            | 133   |
| 85 10 30 |      | 24527644.5 | .4         | 52             | 55    |
| 86 4 1   |      | 24527643.9 | .4         | 47             | 56    |
| 86 4 2   |      | 24527644.0 | .4         | 16             | 20    |
| 86 4 4   |      | 24527645.2 | .7         | 13             | 22    |
| 86 4 7   |      | 24527644.6 | .3         | 44             | 46    |
| 86 4 10  |      | 24527645.1 | .4         | 48             | 49    |
| 86 4 13  |      | 24527644.2 | .3         | 49             | 49    |
| 86 5 14  |      | 24527644.5 | .6         |                |       |
| 86 5 18  |      | 24527645.2 | .2         | 47             | 49    |
| 86 5 21  |      | 24527644.2 | .3         | 44             | 44    |

|          |            |    |     |     |
|----------|------------|----|-----|-----|
| 86 10 16 | 24527645.2 | .3 | 117 | 125 |
| 86 10 19 | 24527646.2 | .3 | 51  | 53  |
| 86 10 22 | 24527645.8 | .3 | 50  | 55  |
| 86 10 26 | 24527645.7 | .3 | 50  | 52  |
| 86 10 29 | 24527645.5 | .3 | 45  | 50  |
| 86 10 31 | 24527646.2 | .5 |     |     |
| 86 11 1  | 24527645.3 | .3 | 46  | 49  |
| 86 11 4  | 24527644.0 | .3 | 41  | 46  |

**LENGTH:**

Mean = 24527644.9 + .1 cm (scaled 1 sigma)  
 Weighted RMS scatter about the mean = .6 cm  
 Slope = -.0 + .1 cm/yr (scaled 1 sigma)  
 Weighted RMS scatter about the line = .6 cm



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